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Newsletter of the Western Pacific Regional Fishery Management Council

Ecosystem-based Management of Fisheries in the US Pacific Islands

The Council was established by Congress in 1976 to manage marine resources and maintain opportunities for sustainable domestic fishing in the US exclusive economic zone waters and high seas around Hawaii, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands and the eight US Pacific remote island areas.

www.wpcouncil.org

Federal Pelagic Fishing Permits Issued in the Western Pacific Region (as of Sept. 5, 2013)

Hawaii Longline - **131**
American Samoa Longline - **47**
Western Pacific (WP) General Longline - **0**
WP Receiving Vessel - **26**
WP Pelagic Squid - **1**
Pacific Remote Island Areas Troll and Handline - **5**

For more information, contact NMFS Pacific Islands Regional Office at walter.ikehara@noaa.gov.

Council Offers Options to End Bigeye Tuna Overfishing

Since the late 1990s, bigeye tuna in the Western and Central Pacific Ocean (WCPO) has been experiencing overfishing. Tuna fisheries operating in the WCPO include longliners and handliners targeting adult bigeye and purse seiners targeting skipjack and incidentally catching juvenile bigeye.

International management of tuna and other highly migratory pelagic fisheries in the WCPO is conducted by the Western and Central Pacific Fisheries Commission (WCPFC). This regional fishery management organization was formed by an international agreement to which the United States is a party. Despite years of negotiation and adoption of conservation and management measures (CMMs), the WCPFC has been unable to find a solution to end bigeye tuna overfishing that will satisfy both the longline and purse-seine fleets.

At its 9th regular session in December 2012, the WCPFC agreed on CMM 2012-01, which established a goal of reducing bigeye mortality to a level no greater than F/Fmsy≤1. CMM 2012-01 maintained bigeye tuna limits for longline fleets, including the US/Hawaii limit of 3,736 metric tons, but did not provide annual longline bigeye catch limits for any of the participating territories or small island developing states. CMM 2012-01, among other things, also increased the fish aggregation device (FAD) closure by a month, requiring a four-month purse-seine FAD closure or equivalent reduction in purse-seine FAD sets. CMM 2012-01 directed WCPFC members to cooperate on developing a more comprehensive measure.

The Western Pacific Regional Fishery Management Council at its 157th meeting, held in Honolulu, June 26-28, 2013, addressed the prolonged overfishing of WCPO bigeye tuna. It recommended that NMFS, in consultation with the Council, develop management options that would end bigeye tuna overfishing by restricting FAD use, using spatial management and reducing fishing capacity and to propose these options to the WCPFC. The Council and NMFS are members of the US delegation to the WCPFC, which will hold its 10th regular session (WCPFC10) Dec. 2 to 6, 2013, in Cairns, Australia.

Bigeye caught by the Hawaii longline fishery at the Honolulu fish auction.

The options the Council is promoting address the increasing impact the purse-seine fishery has had on the stock. Purse seines account for approximately 67 percent of WCPO bigeye tuna overfishing, according to the WCPFC Science Committee. Purse-seine effort on FADs in 2011 was at an all-time high, up 43 percent from 13,000 FAD sets in 2010 to approximately 21,500 observed FAD sets in 2011, not including Philippines and Indonesia domestic tuna fisheries. The result was a record incidental catch of bigeye tuna by purse seiners. By comparison, the targeted catch of bigeye

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This photo of tuna in a purse seine net was taken during an ISSF research project, supported in part by the Western Pacific Fishery Management Council. It is investigating techniques to mitigate the catch of non-targeted species in the purse-seine fishery. Photo by Jeff Muir. © 2012, ISSF

Local Focus May Maximize Hawaii's Yellowfin Stock

Above: Tuna researcher David Itano gave presentations on bigeye and yellowfin tuna at the Council's October 2012 Fishers Forum. Among the informational booths from various agencies and organizations was the Council's polling on the yellowfin minimum commercial harvest size.

Inset map: Tagging studies show that most yellowfin tuna do not leave Hawaiian waters throughout their lifetime.

The 2006 reauthorized Magnuson-Stevens Fishery Conservation and Management Act requires federally managed species to be regulated under annual catch limits. Highly migratory species, such as tuna and billfish, are exempted if they are subject to conservation and management measures by an international regional fishery management organization. Recent research, however, has led some Hawaii folks to question the "highly migratory" nature of yellowfin tuna caught locally.

The tagging studies indicate that nearly 90 percent of the 1- to 2-year-old yellowfin tuna, i.e., those weighing 15 to 30 pounds, sampled in Hawaii were locally spawned. They also show that the vast majority of the yellowfin do not leave Hawaiian waters throughout their lifetime.

This research suggests that Hawaii's fishermen cannot rely on large influxes of yellowfin tuna from other regions to maintain their catch rates and replace harvest stocks. So maximizing the production from the "local stock" makes sense. How can this be done?

One option is to increase the minimum harvest size of commercially landed yellowfin. The current legal size for sale is 3 pounds. Yellowfin at this weight are about 16 inches in length and eight months old. They are not sexually mature, and their natural mortality rate (i.e., mortality not related to fishing) is quite high.

Natural mortality rates of Hawaii yellowfin drop to their lowest levels when the tuna are about 10 pounds (about 24 inches). If not caught by fishermen, many of the yellowfin at this size will survive and grow. They will not be lost to natural mortality nor will they migrate.

Once they reach two years old (30 pounds), they will quickly grow to reproductive size and contribute to local spawning and stocks.

The Council conducted an informal poll at the Hawaii Fishing and Seafood Festival and the Fishermen's Forum held in conjunction with the 155th Council meeting in October 2012 in Honolulu. People cast their vote on their preferred minimum commercial harvest size for yellowfin tuna. During the Fishing Festival, 259 votes (mostly from the general public) were cast. At the Fisherman's Forum, 63 votes (mainly from fishermen) were cast. Both groups agreed that the 3-pound minimum commercial harvest size is too small and that a larger size category should be used as the standard in Hawaii.

During the first half of 2013, the Council has worked in collaboration with National Marine Fisheries Service staff and a video filmmaker to draft a script for an educational video on yellowfin minimum size. The video will likely be developed in collaboration with the State of Hawaii's Department of Land and Natural Resources, as this agency develops the policy and rules for local fishery landings in Hawaii. In the interim, the Council re-affirmed its commitment to facilitating discussions on yellowfin minimum size and the science behind a potential increase in the minimum landed weight for commercial fisheries. For more information, contact the Council's senior scientist, Paul Dalzell, at paul.dalzell@noaa.gov.

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Bigeye Tuna Overfishing

by the longline fishery was below its 10-year average. The purse-seine catch occurred primarily around FADs and equaled the targeted fisheries' bigeye catch in weight but was 10 to 20 times higher than the targeted fisheries' haul in the number of individual bigeye caught.

If the purse-seine fishery were held to the 2010 number of total annual FAD sets and longline catches were maintained at current levels, overfishing of bigeye would be eliminated within 10 years, according to stock assessment models by the Secretariat of the Pacific Community.

While the Hawaii and American Samoa longline and handline fisheries combined account for only 3 percent of the total WCPO bigeye catch, the bigeye tuna fishery is of extreme importance to the Council and the fishermen and consumers it serves. Honolulu consistently ranks among the nation's top 10 fishing ports in value landed because of its longline landings of sashimi-quality bigeye. Eighty percent of the Hawaii longline catch stays in the State, where tuna tops the list of seafood consumed with an annual average of 12.72 pounds per capita. By comparison, shrimp ranks first for the rest of the nation (4.08 pounds per capita) and canned (principally skipjack) tuna ranks second (2.80 pounds per capita).

Council Recommends Lifting American Samoa Swordfish Limit

Under a recent regulatory amendment to the Pelagic Fishery Ecosystem Plan (PFEP), the amount of swordfish that Hawaii deep-set longline vessels can retain per trip increased from 10 to 25 if they are employing circle hooks or unlimited if carrying an observer. American Samoa longline fishermen subsequently asked the Western Pacific Regional Fishery Management Council to similarly increase their limit, currently set at 10 swordfish per trip. The American Samoa longline fishery targets albacore, and swordfish is a non-target stock taken in extremely small numbers, due to regulations requiring hooks to be set deeper than 100 meters from the surface.

At its 157th meeting in June 2013, the Council examined alternatives for the American Samoa longline fishery including maintaining the 10 swordfish limit, increasing the limit to 25 or 32 swordfish per trip based on observer and logbook data, respectively, or removing the limit entirely if carrying an observer. After deliberations, the Council opted for a regulatory amendment to remove the swordfish limit entirely for the American Samoa longline fishery. This removal with no observer requirement attached takes into consideration concerns raised by the National Marine Fisheries Service (NMFS) Pacific Islands Fisheries Science Center that fishermen might modify their behavior to target swordfish when an observer is onboard should the presence of an observer be the criteria for removal of the limit. Further, the 10 swordfish restriction limit serves no conservation and management need since fishermen do not target swordfish and removing the limit reduces regulatory discards (bycatch).

The Council has voted to lift the 10 swordfish per trip limit for the American Samoa longline fishery. The fishery currently targets albacore tuna for the Pago Pago canneries, which primarily receive skipjack tuna from purse seiners. Pictured is Pago Pago Harbor with a local longliner in the foreground and purse seiners in the distance. Photo courtesy of Dave Hamm, Western Pacific Fisheries Information Network

In 2012, the Council took final action to allow American Samoa longline vessels to make shallow sets to target swordfish if they use large (18/0) circle hooks and mackerel bait and carry an observer. NMFS has not yet implemented the amendment. Current measures prohibit the setting of hooks shallower than 100 meters in depth, so American Samoa longliners are currently unable to legally target this species by setting hooks shallower than 100 meters. They have also shown little interest in developing a shallow-set fishery for swordfish due to the economics of marketing the catch. Swordfish resources are preseent in higher latitude waters beyond the US exclusive economic zone around American Samoa.

Longliners Encouraged to Work with Regional Group to Conserve South Pacific Albacore

South Pacific albacore is extremely important to the American Samoa longline fishery and is the second largest fishery under the jurisdiction of the Western Pacific Regional Fishery Management Council. Vessels from neighbor countries, such as the Cook Islands, also fish the same albacore stock and unload at the canneries located in Pago Pago, American Samoa. While the 2011 South Pacific albacore stock assessment is favorable, fishery managers are concerned because the catch of this species has more than doubled in about 10 years from about 40,000 metric ton (mt) to 90,000 mt and is approaching the maximum sustainable yield (MSY) of about 99,000 mt.

The American Samoa longline fleet is one of several fisheries targeting the same South Pacific albacore tuna stock. Landings have more than doubled in about 10 years and are approaching the maximum sustainable yield.

The Council at its 156th meeting in March in American Samoa recommended that the American Samoa longline fishery that targets South Pacific albacore cooperate with Te Vaka Moana (TVM), a group comprised of Cook Islands, New Zealand, Niue, Independent Samoa, Tonga and Tokelau. The Council, in cooperation with the Departments of State and Commerce, will work to secure observer status for the American Samoa government and the Council in TVM meetings, with a goal of strengthening the conservation and management measures of the Western and Central Pacific Fisheries Commission (WCPFC) for the South Pacific albacore fishery across the entire range of the stock. Existing WCPFC measures for South Pacific albacore apply only south of 20° S. At the 9th regular session of the WCPFC in December 2012, the TVM group had proposed establishing an MSY-based stock-wide total allowable catch and zone- and flag-based catch limits for the South Pacific albacore stock. However, the members were unable to conclude their internal discussions in time to offer a proposal to WCPFC9. Most were in favor of adopting a stronger management measure at WCPFC10, which convenes Dec. 2 to 6, 2013, in Cairns, Australia.

Also at its March meeting, the Council noted that the Cook Islands Ministry of Marine Resources has proposed establishment of a Satellite Office in Pago Pago, reflecting the importance of American Samoa as a regional fisheries hub. The Council will work with American Samoa and Cook Islands governments to establish the office so as to improve the Cook Islands' ability to monitor longline vessels fishing in the Cook Islands that land their catch in Pago Pago. The office will also enhance domestic implementation of international compliance and monitoring obligations stemming from the WCPFC.

The Council will also work with the American Samoa Department of Marine and Wildlife Resources and the US Fish and Wildlife Service to identify a solution to the lack of dock space in Pago Pago Harbor for American Samoa longline vessels.

TriMarine International Invests in American Samoa

TriMarine International (TMI) is making headway toward its goal to make American Samoa a regional hub for fish processing. The company has lobbied Pacific Island nations, including the Parties to the Nauru Agreement, to send their tuna to be processed in the territory. TMI has also completed efforts to re-establish a sustainable cannery operation and bring back 2,000 jobs that were lost when COS (Chicken of the Sea) Samoa Packing closed in 2009.

On April 12, 2013, TMI held a ribbon cutting ceremony to mark the completion of its new cold storage facility in the village of Atuu in Pago Pago Harbor. This fully operational facility can receive, classify and store 5,000 metric tons of frozen tuna. TMI was able to utilize advanced refrigeration machinery and insulation systems to create the most efficient and economical facility of its kind in the region.

In June 2013, Samoa Tuna Packers, a subsidiary of TMI, received a permit from the Army Corps of Engineers to repair its seawall and extend its dock. This signals the start of the final part of TMI's plan to make American Samoa its hub in the South Pacific.

Two factors that may have contributed to the company's enthusiasm to invest in American Samoa are the delayed federal minimum wage hike and the significant improvements at the Ronald Reagan Marine Railway Shipyard, enabling the facility to provide professional repairs and maintenance to TMI's fleet of fishing vessels. The local shipyard had already repaired, sandblasted and painted several TMI longliners since last year.

TMI has 10 purse seiners based in the territory, and each boat spends about $450,000 each time it docks. The company estimates its total investment in American Samoa to be about $200 million between the new fish plant and locally based fishing fleet.

The company is also taking a role to assist fisheries research. A TMI vessel investigated purse-seine catches on fish aggregation devices to determine ways to minimize bigeye tuna and shark catches while maintaining economically viable catches of skipjack and yellowfin tuna. The vessel was chartered by the International Seafood Sustainability Foundation (ISSF), and funding was contributed by the Western Pacific Regional Fishery Management Council. TMI vessels are enrolled in the ProActive Vessel Registry, an ISSF project that distinguishes vessels committed to the overall sustainability of tuna fisheries.

Members of the Western Pacific Regional Fishery Management Council tour ongoing improvements at the tuna canneries in Pago Pago harbor during a break at the 156th Council meeting held March 2013 in American Samoa.

Most Billfish Allocated to Recreational Sector

Capt. Rick George (second right) of Luka & Ben *and anglers Ben Fitipol, Steven Igisaiar, Philip and Melvin Aldan, and Mika Okubo with their winning Pacific blue marlin during the 29th Annual Saipan International Fishing Tournament, held July 13 and 14, 2013.*

The United States has been the largest importer of billfish in the world, bringing in approximately 30,000 billfish or 1,300 metric tons annually. This will change following President Barrack Obama's signing of the Billfish Conservation Act on Oct. 5, 2012. The Act prohibits the sale, custody, control or possession of billfish (except swordfish) for sale or for purposes of offering for sale, but exempts billfish caught by US vessels and landed in Hawaii or Pacific Insular Areas (PIAs, i.e., American Samoa, Guam, the Commonwealth of the Northern Mariana Islands and various other US islands). The Act also exempts billfish landed by foreign vessels in the PIAs if they are exported out of the United States or retained for local consumption in the PIAs or Hawaii. The Act thus allows for the continuity of traditional fisheries in Hawaii and the PIAs. Billfish landings from US Pacific Island fisheries may be retained for domestic markets, exported to the US mainland or exported to non-US markets. The advanced notice of proposed rulemaking was published on April 4, 2013, with a public comment period that ended on July 3, 2013.

The measures essentially allocate marlin, sailfish and spearfish to the recreational fishery sector for the vast majority of the United States. Catch-and-release fisheries for these species support many marine jobs and generate billions of dollars for the US economy. Hawaii has a large recreational fishing sector and charter vessel fishery, with the world's largest charter vessel fishery targeting blue marlin.

The Western Pacific Regional Fishery Management Council is broadly supportive of the Billfish Conservation Act as it is consistent with the unique characteristics of this region as identified in the Magnuson-Stevens Fisheries Conservation and Management Act. The decision to allocate all marlins to the recreational fishery sector is predicated on the widespread catch-and-release ethic for billfish by recreational and charter fisheries in the continental United States and the assumption that there is a high post-release survival rate of tag-and-release, non-commercially caught billfish, which may be erroneous.

The Council supported the exemption language in the Act for the fisheries in the Western Pacific Region, noting that comments opposed to the exemption would likely characterize the Western Pacific exemption as a loophole through which Atlantic billfish might be "laundered." Such a suggestion is ludicrous as the prices in Hawaii for marlins would make any such laundering operation hopelessly uneconomical. The Council believes that the mix of landings and tag-and-release of marlins and other billfish in Hawaii and the Western Pacific contributes more to the achievement of optimum yield than simply banning commercial landing and sale of marlins and billfish.

Shark Conservation Act Draws Large Crowd to Fishers Forum

The Fishers Forum on King Shark: From Manō to Jaws, held June 17, 2013, in Honolulu, as part of the 157th meeting of the Western Pacific Regional Fishery Management Council, attracted more than 120 members of the public plus over a dozen high school students from the Council's summer school on fishery management. The Forum focused on the culture, science and management of sharks in Hawaii. A lively public discussion ensued particularly about the National Marine Fisheries Service (NMFS) proposed rule published on May 2, 2013, to implement the 2010 Shark Conservation Act (SCA). The proposed rule notes that, if sharks are lawfully harvested in federal waters, state and territorial laws that prohibit the possession and landing of those sharks with fins naturally attached or that prohibit the sale, transfer or possession of those fins, unduly interfere with the achievement of the Magnuson-Stevens Fisheries Conservation and Management Act (MSA) purposes and objectives. The local laws would thus be preempted. State and territories have the opportunity to interpret their laws so they are consistent with the SCA and MSA. Local laws that do no prohibit the landing of sharks with fins naturally attached that were legally harvested from federal waters would not be preempted.

Artisan Umi Kai displays handcrafted traditional Hawaiian imple-ments made from shark teeth and skin, one of several informational booths at the Fishers Forum.

The SCA amended the MSA to improve the conservation of sharks. The purpose of the SCA is to prohibit the disposal at sea of finned shark carcasses, which Congress deemed to be wasteful and which is counter to National Standard 9 of the MSA. In particular, it prohibits the landing of sharks without their fins attached.

The Council strongly supports the proposed rule to preempt state and territorial statutes that are inconsistent with the MSA and the intent of Congress and that place an undue burden on inter-state commerce. The MSA requires that fisheries be regulated to achieve optimum yield. Shark flesh, apart that of thresher and mako sharks, is generally not as highly esteemed as other fish species, and thus fishermen seek additional revenues from fins to maximize overall economic benefits to the nation consistent with conservation objectives. If sharks are lawfully landed with fins attached, fishermen should not be penalized from reducing waste and gaining the maximum economic return from the shark resource.

Sharks are part of the management unit of all the Council's Fishery Ecosystem Plans (FEPs). They include open-ocean or pelagic sharks, as well as reef and coastal species found throughout the US exclusive economic zone in the Western Pacific Region. The Council's FEPs are based on maintaining both ecosystem function and the provision of ecosystem goods and services. Sharks can produce a wide variety of products besides the flesh and fins, including leather, liver oil, teeth and cartilage. The Council and its advisory bodies review the stock status of all management unit species, including sharks.

There are no directed shark fisheries in the US Western Pacific Region. The largest volume of shark catch by US domestic fisheries in the Western Pacific is by the Hawaii longline fishery. Most of the catch (> 90 percent) are blue sharks, and most (>95 percent) are released alive. In addition, the Hawaii longline fishery has achieved about a 50 percent reduction in shark mortality over the past decade as a result of bycatch management measures for turtles. The main market for sharks is Honolulu, where about 155 metric tons of mainly threshers and makos are landed for the limited demand in Hawaii.

Elsewhere in the region, sharks form only a small fraction of the total catch, for example, about 2 percent of the American Samoa longline catch in 2011. Troll and handline fishermen from Guam and the Commonwealth of the Northern Mariana Islands (CNMI) lose a high proportion of catches to shark depredation.

USCG Exempts Small Commercial Vessels from Safety Equipment Measures

The Fall 2012 issue of the *Pacific Islands Fishery News* noted that the US Coast Guard (USCG) would be requiring all commercial fishing vessels operating beyond 3 nautical miles of shore to undertake a mandatory safety examination every two years beginning on Oct. 16, 2012. However, the Coast Guard and Maritime Transportation Act of 2012 (USCG Reauthorization Act) signed into law by President Obama on Dec. 20, 2012, delays the date commercial fishing vessels would need dockside examinations to Oct. 15, 2015, and changes the vessel re-examination requirement to be every five years. However, the two-year examination requirement remains in effect for vessels subject to carrying NOAA Fisheries observers.

The Act did not modify the existing safety regulations found in 46 CFR Part 28, which lists the safety equipment that commercial fishing vessels are required to carry.

At the Western Pacific Regional Fishery Management Council's 155th meeting held Oct. 29 to Nov. 1, 2012, in Honolulu, the USCG provided a presentation on these requirements. Recognizing that equivalent safety equipment may allow some vessels to be exempted from the required equipment and potentially save fishermen thousands of dollars, the Council directed its staff to work with the USCG and affected fishermen to identify potential exemptions and equivalencies that are locally available and appropriate for the region's fishing activities. The Council also directed its staff to work with the USCG on education and outreach efforts related to these issues.

On Dec. 7, 2012, the USCG issued a notice to commercial fishermen in American Samoa, Guam, Hawaii and the Commonwealth of the Northern Mariana Islands (CNMI) that identifies a "class exemption" for vessels less than 36 feet in length that operate less than 15 nautical miles from shore with four people or fewer on board. The primary exemption for vessels meeting the criteria is that an inflatable life raft is not required. This translates to significant savings for

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Catch Limits Respecified for Fishing Year 2014

The Western Pacific Regional Fishery Management Council, at its 157th meeting held in Honolulu from June 26 to 28, 2013, re-specified the annual catch limits (ACLs) for fishing year 2014 for fisheries in the Western Pacific Region, as required by Congress. These ACLs apply to fish caught within the exclusive economic zone (generally 3 to 200 miles from shore) around Hawaii, American Samoa, Guam and the Commonwealth of Northern Mariana Islands (CNMI).

Typical coral reef spearfishing catch in American Samoa.

For the main Hawaiian Islands (MHI) deep 7 bottomfish fishery, the Council set the ACL at 346,000 pounds corresponding to the acceptable biological catch with a 40.8 percent risk of overfishing. The previous year's quota was 325,000 pounds set as an annual catch target (ACT), which is a 6 percent reduction from the ACL. The ACT accounted for uncertainties in the monitoring of the fishery used to project when the limit would be reached and the fishery closed. Newly implemented trip level reporting for the bottomfish fishery by the State of Hawaii supplanted monthly reporting in 2011, resulting in significant reductions in this management uncertainty, so the ACT was no longer warranted.

For the MHI non-deep 7 bottomfish and for the coral reef species complex, crustaceans and precious coral fisheries in the Western Pacific Region, the Council set the ACLs for fishing year 2014 at the same levels as 2012 and 2013. The Council also noted some overages in the catches in 2012. The Hawaii overages were mostly driven by increased catch reporting resulting from implementation of civil resource violation penalties. The overages in American Samoa, Guam and CNMI were due to the inherent problems in the data collection program where the low number of catch interviews combined with the substantial catches of those few who were interviewed created an upward bias in the catch expansions. Some of the species groups for which the ACLs were exceeded are highly productive with short lifespans and high turn-over rates, so the level of the overages would not cause declines in these populations.

The Council noted deficiencies in the current specification control rules to set limits that are biologically meaningful and in the data collection programs to address management concerns. The Council already took the necessary steps to upgrade the specification process by exploring the model-based approach to determine maximum sustainable yield (MSY) levels. At its 112nd meeting in February 2013, the Council's Scientific and Statistical Committee (SSC) recommended moving forward with the Catch-MSY approach by Martell and Froese 2012 (see http://phys.org/news/2012-07-shortcut-sustainable-fisheries.html) and incorporate biomass information in the model from fishery independent surveys done by the National Marine Fisheries Service's Pacific Island Fisheries Science Center. This method will generate an estimate of MSY that is required to set the overfishing limit in the ACL process.

The Council encourages fishermen to contribute to the improvements in the specification of catch limits by reporting their catches accurately and participating in the various fishery data collection programs of the state and territories. More information about the fisheries would minimize the uncertainties and can potentially result in higher catch limits.

Federal Archipelagic Fishing Permits in the Western Pacific Region
(as of Sept. 5, 2013)

Western Pacific (WP) Bottomfish - 2 (1 Guam, 1 Guam & Pacific Remote Island Areas)

Commonwealth of the Northern Mariana Islands Bottomfish - 9

Main Hawaiian Islands (MHI) Non-commercial Bottomfish - 7

WP Lobster - 2 (MHI)

WP Deepwater Shrimp - 5 (MHI)

WP Precious Coral - 1 (MHI)

For more information, contact NMFS Pacific Islands Regional Office at walter.ikehara@noaa.gov.

New Study Reports on Hawaii's Coral Reef Fishery Market

Fresh, locally caught uhu (parrotfish) sold in Chinatown market on Oahu.

The people of Hawaii have a large dependence on coral reef fisheries for food as well as the perpetuation of Hawaiian culture. Coral reef fish species such as *uu* (menpachi, soldierfish or squirrelfish), *uhu* (parrotfish), *weke* (goatfish) and *kala* (unicornfish) are harvested through nets, spears and pole-and-line for cultural and family events across the islands. While a large portion of coral reef fish is harvested for subsistence use, commercial coral reef fish landings top over 1 million pounds annually. Many people believe that increased pressure on the reefs from tourism, pollution and fishing has caused these fish stocks to decline. Assessments of the coral reef fisheries need to incorporate

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small vessel fishermen in the Western Pacific Region as inflatable life rafts typically cost more than $2,500 and must be serviced annually by a certified technician. For areas lacking certified life raft technicians like American Samoa, Guam and CNMI, this exemption also eliminates shipping costs and delays in fishing while the life raft is being service. Also, in lieu of an Emergency Position Indicating Radio Beacon (EPIRB), the USCG has authorized that a Personal Locator Beacon (PLB) may be used. PLBs are believed to be several hundred dollars cheaper than EPIRBs. A dockside examination of the vessel is required for these exemptions.

The USCG has been a member of the Council since 1976 and regularly provides its expertise on enforcement and safety-at-sea issues on the Council in the development of fisheries management measures. For more information on the safety examination requirements and associated safety equipment visit www.fishsafe.info or call the USCG District 14 Commercial Fishing Vessel Safety Program at (808) 535 3417.

their social-cultural and economic importance as well as the biological components. To support these assessments, the Council undertook a study to better understand coral reef fish markets in the State of Hawaii with the goal of enhancing management and conservation strategies in the Council's Hawaii Archipelago Fishery Ecosystem Plan by taking into account the economic impacts of these markets.

The study interviewed 98 commercial businesses that sold coral reef fish on Kauai, Oahu, Maui and the Big Island, of which 45 reported purchasing coral reef fish directly from fishermen. Results of the study showed that the largest markets for coral reef fish on Oahu are in Honolulu and Waipahu. On Maui the largest markets are Kahului and Wailuku. Nearly 30 percent of the chain grocers interviewed reported purchasing coral reef fish, while more than 65 percent of the small stores (e.g., local grocers, fish markets, etc.) reported purchasing coral reef fish. Only 13 percent of the restaurants interviewed reported purchasing coral reef fish from fishermen.

The study also found that distributors mainly purchase fish directly from fishermen and that fishermen are the largest suppliers of akule (bigeye scad) and opelu (mackerel scad) to grocery store chains. Direct purchase from fishermen reflects liability concerns such as ciguatera and other seafood issues. The smaller stores have close relationships with the handful of fishermen from whom they directly purchase fish on a regular basis. Most dealers responded that less than 15 percent of their revenues came from coral reef fish sales, although a few noted that coral reef fish sales are over half of their business. Most preferred hook caught coral reef fish, citing concerns about product appearance and quality when caught with other methods such as gillnets or spears. However, due to high prices and limited availability of hook-caught fish, they often purchase coral reef fish caught from these other methods. Coral reef fish can be shipped inter-island by distributors for sale, although fishermen may choose to sell their catch on Oahu where prices are higher due to a higher demand.

Interestingly, almost all of the dealers interviewed noted consumer preferences along ethnic lines. Coral reef fish were primarily bought by immigrants from remote, rural areas of Micronesia, Tonga, Samoa and the Philippines where people often fish for themselves. Some attributed this ethnic preference for coral reef fish to economic well-being and longevity in the islands. It was also noted that, as their economic well-being improved with a longer stay in Hawaii, many immigrants' preferences shifted to include more pelagic and bottomfish species.

Left: *Chinatown seafood market on Oahu selling locally caught coral reef fish.* ***Middle:*** *Fresh, locally caught naenae (surgeonfish) at Chinatown market, Oahu.* ***Right:*** *Fresh kala (unicornfish) at Waipahu market, Oahu.*

In response to management concerns, most dealers have adjusted their purchasing to meet the local demand for coral reef fish while purchasing only smaller quantities of higher quality fish to reduce pressure on coral reef fish populations. Many dealers were unaware of current management efforts, including but not limited to current minimum sizes, indicating the need for outreach to dealers as well as fishermen. Also, many dealers did desire additional management measures, particularly enforcement on size and gear restrictions.

This study highlighted the important social, cultural and economic role of coral reef fish in the local food systems in Hawaii. Further research is needed on roadside sales and other informal coral reef fish markets to determine the significance of these informal markets and their communities. The role of imported coral reef fish is also a concern worth further study. To read the "Hawaii Coral Reef Dealer Study" in its entirety, go to www.wpcouncil.org/managed-fishery-ecosystems/hawaii-archipelago/hawaii-archipelago-library/.

Council Endorses Hawaii REAC Recommendations on Climate Change Impacts

Guest speakers at the Hawaii REAC meeting on climate change flank Council vice chair Ed Ebisui and Executive Director Kitty Simonds (2nd and 3rd from left), including (from left) Carl Jellings, Jeff Polovina, Charles Fletcher, Brad Warren and John Marra.

The Hawaii Regional Ecosystem Advisory Committee (REAC), at its June 17, 2013, meeting in Honolulu, made a suite of recommendations to help fishery managers and communities address climate change impacts. The REAC advises the Western Pacific Regional Fishery Management Council on its Hawaii Fishery Ecosystem Plan, particularly regarding land-based issues.

The theme of the REAC meeting was "From Weather to Climate Change." Presenters included Charles Fletcher, University of Hawaii, on sea-level rise; Brad Warren, Sustainable Fisheries Partnership, on ocean acidification; Jeffrey Polovina, Pacific Islands Fisheries Science Center, on marine ecosystems; John Marra, NOAA Climate Services, on cumulative impacts, Carl Jellings, fishermen, on impacts to Hawaii fisheries, and Stan Enomoto, National Park Service, on climate change and cultural resource adaptation.

During the ensuing discussion, Makani Christensen, Hawaii Advisory Panel member, and Dean Sensui producer of *Hawaii Goes Fishing* also presented on State of Hawaii efforts to restrict fishing at Puako Bay and Reef, Big Island.

The Council endorsed the REAC recommendations during its 157th Council meeting in June in Honolulu. These and other recommendations from the 157th Council meeting can be viewed at http://www.wpcouncil.org/wp-content/uploads/2013/07/Final-157th-CM-Action-Memo.pdf.

Ulua Fishing

"The ulua is the bull dog of the shore fish and a fighting fool."

From the Chronicles of William G. C. Wedemeyer

In 2011, the Western Pacific Regional Fishery Management Council began publishing excerpts from a series of interviews with William Wedemeyer of Hilo, who was born in Germany in 1881 and died in Hawaii in 1955, after working for the Matson Hawaii Company for about 40 years. Wedemeyer began his interview noting that "these lines about old time fishing ... could be interesting to the Fish and Game warden, the old and new generations of Hawaiian and the general public of this island [Big Island] and all the islands." Following the publication of the first interview, Makani Christensen, a great grandson of Wedemeyer, made contact with the Council and is now an active member of the Council's Advisory Panel. To the extent practical, edits of the original account have been minimized to preserve the local flavor of the stories.

"This is September. The aku bait is getting scarce. Captain Namau tells us boys we are finished fishing aku this year and we are going to try for ulua before we dismantle the malau (bait box on the double-hull fishing canoe). Nakahaina and Noelani go on our blue boat and fish for any kind of fish they want to go after, ula ula (lobster), ahi (tuna), uhu (parrotfish), oio (bonefish) and hee (octopus). We made a box with a sliding cover. The next day we pulled over to Coconut Island, and we had some cracked up kukui nuts and coconuts with us. Four men each had an iron rod about 3 feet long pointed on the end, with an eye on the other end and a white or red rag knotted through the eye. Kauhi, the forward stroke, pulled towards Hilo where the breakwater was started in later years. At the same time, the other four men were chewing their kukui nuts and coconuts and spitting it in the water. The water became smooth as glass, not a ripple, and now one of the boys dove in the water as he spotted a squid (octopus), speared it, and up he came. "Ekahi koʻi" or one more spear he sings out as he gets his spear and down he goes again, up he comes spear arm high, some of the squids tentacles around his arm and neck. He gets him loose, bites the eyes, turned him outside in and puts him in the box, a 3- to 4-pounder. And so on, after the other boys get their squid we get to Puhi, a little past where the breakwater starts today, 10 squid are in the box.

"This is Kahakue's place so Kahakue says, we go in and eat. So we go in, two big squids are taken out of the box put in a bucket with salt and made soft by pounding up and down. Fire is lit and Mr. Squid goes in the pot, a bowl of poi taken off the malau, kukui nut mixed with Hawaiian salt and chili pepper. Now we all go in his house. It was like a big boat house. It was almost bare inside except a few mats, a table, sleeping mats, a few pots, but what took my fancy was a pretty row boat, a big one, it must have taken four or six men to pull it, everything brass inside even the oarlocks, with the Hawaiian coat of arms fore and aft. So I ask tutu (Kahakue), who owns the boat? This boat belongs to the Keiki Alii Kuhio and [others unknown]. So we all sat down on the mat, dug in the pot and ate cooked squid and poi with salt and kukui nut. It was good with black coffee.

"The ulua lines were ready; the bait was on the malau and also the hooks. We needed something else before we were to leave at 5 o'clock this afternoon. We all went in the bushes and came back with a couple of arms full of young lauhala leaves. I came with two empty 5-gallon Kerosene tins with the tops cut out, part of the sides bent down, two holes put in each side, stout fence wire in each hole so we had two good stoves. Then three or four pieces of 1 x 12 were cut to size to fit across the canoe. There was plenty good lumber laying around the beach, which had been slipping out of the sling of a lumber schooner or a broken sling, so we had good platforms to put our stoves on top, plenty good dry wood on the beach. Old man Kahakue brought two good size pots, 2 pounds of Kona coffee and a tin of sugar. We had a 5-pound tin of hard round crackers on the malau and also some loose ones. Four empty gallons were filled out of Kahakue's rainwater barrel pipe; water was unknown in Hilo those days. Pots filled up, gallons refilled, dry wood piled on the platform and fire started under the pots with a couple of empty tins alongside.

"Three number 36 lines were on the malau. Hook lines were getting fixed up ashore, four of them in case one would break or get fouled on the rocks when the ulua goes for the rocks, for his (the ulua's) element is the breakers or close to them. The hook line is about 10 feet. The young lauhala leaves laid around the hook line in small bundles, 3 feet apart, then lashed tight; a big squid cut in two or three parts is put on the hook so it will cover the hook or a small squid whole is lashed on the hook. Everything is ready now; we are off for the Puna coast. Now we pass Keauhahi Point; we paddle ahead, every four or five strokes we hit the top part of the canoe with our paddle by orders from the Captain. Now we are almost abreast of the breakers; this side Wei uli breaker starts to break quite a way from the land. Almost at the breaking point, Kahakue shouts "hoi i waho" (pull outside); he pulls in his first fish, a 50-pound ulua. We hear his hard wood club pounding the fish on the head for the kill. We have to work fast now going around in a circle where the fish struck. Then Namau sings out (hoi i waho); he got one on the same spot, an 80-pounder black ulua. He put a bit of a struggle, but no slack is given and we hear the pounding of his club, alright good start. We got one more at Wai uli, two more at Leleiwi point, and then paddled along slowly, drinking coffee and eating hard crackers until we got to Ana Puka point. We were more on the alert; close to the breaker, one more big fellow at Kahaka point and then around the Pele's Rock in Keaau Bay. Around the Rock we pulled a dozen times and got five more. Then we took a rest and figured out if we should go further on to Clodie Point or go home. It had started to rain. Traveling light we had not taken our oil skin coats with us. Never mind, we had lots of strong hot coffee and the paddling kept us warm. Bait was getting short too. Yes sir, the ulua is the bull dog of the shore fish and a fighting fool. So our captain said go home. We got three more big fellows on our way home. Our captain and Kahakue were strong men who could handle Mr. Ulua. Never gave them a chance to foul our lines on the rocks. We are back at Waiakea by 3 o'clock in the morning. Then after a few hours of sleep, two fish are taken out to be cut up and divided among us. The rest is to be sold. Today we rest; tomorrow we may go further, maybe to Clodie Point, Makuu or Mokuopihi Point maybe as far as the Sand Hills or Waawaa. Yes ulua were plentiful those days, so were kawelea or barracuda, a fine eating fish, a silver fish who is good and fat in October, November and December. So you good people, I have told you how the old days Hawaiian fished for hee and ulua."

—Wm. G. C. Wedemeyer

Palolo Harvest Impacts of Climate Change

*Left & middle: Palolo, a polycheate worm (*Eunice viridis*). Photos courtesy of the National Park Service. **Right:** Traditional practice for harvesting palolo included wearing a lei of moso'oi (*Cananga odorata*) flowers. Photo courtesy of Jessie Baker.*

The impacts of climate change and other recent events, such as the 2009 tsunami, are affecting the coral reefs of American Samoa, which are home to important local seafood resources, such as the palolo.

A polycheate worm (*Eunice viridis*), palolo is a local delicacy that can be eaten raw, wrapped in taro leaves and cooked in the umu, or fried with eggs using butter. The worm is also found in other Pacific islands.

In American Samoa, palolo normally appears each year in October and/or November, seven days after the full moon. On Tutuila, these green-brownish worms are often caught around 1 a.m. Specific weather conditions, such as rain and thunderstorms, often indicate strong swarming and therefore good catches. Traditionally, the palolo is seined using freshly woven baskets made from coconut leaves. Nowadays scoops made from cheese cloth or micron mesh are used.

The area around the airport has been a favorite palolo spot for many years. The largest local catch reported to *Samoa News* in 2007 was four coolers and eight buckets filled to the brim with palolo caught by fishermen in a single-hulled boat off the Tafuna Airport area.

Recent research suggests that increasing sea surface temperatures and other stressors can affect spawning of sea creatures including palolo and may have contributed to the general decrease in palolo catches. According to November 2012 news article in neighboring Independent Samoa, many people believe that climate change and water pollution have caused a general decrease in palolo catches. The American Samoa Department of Marine and Wildlife Services samplers doing surveys to estimate palolo catches often run into problems trying to get fishers to let them weigh their precious catch. A local fisherman who once had a good catch of palolo in the early 1990s that netted him nearly $5,000 also believes palolo abundance has declined in recent years and partially blames climate change.

Traditional knowledge has an explanation for the decrease in palolo catches. Traditionally, palolo catchers were required to wear lei made of moso`oi (*Cananga odorata*) flowers and bright and clean attire, put coconut oil on their upper bodies and abide by the traditional rule that palolo should be shared freely and not be sold. These traditional protocols haven't been followed in recent history and hence the decrease and sometimes the complete absence of any palolo swarming—even in some favorite spots and during some seasons. The Government and people of American Samoa also honor the moso`oi flower, the national flower, and this traditional delicacy through its annual Moso`oi Week Festival every October.

Council Tackles Sanctuary Impacts to American Samoa Fisheries

The 0.25-square-mile Fagatele Bay National Marine Sanctuary was expanded into the 13,581-square-mile National Marine Sanctuary of American Samoa (NMSAS). The expanded Sanctuary includes five additional units—Fagalua/Fogama'a (described as Larsen Bay in the proposed rule), Swains Island, Tau, Aunuu and Muliava (Rose Atoll)—and additional regulations that restrict traditional cultural fishing access. The final rule was published in the Federal Register on July 26, 2012.

The effort to expand the Sanctuary began in 2009 with the issuance of Executive Order 8337 by President Bush, stating that, "[t]he Secretary of Commerce shall initiate the process to add the marine areas of the [Rose Atoll Marine National] monument to the Fagatele Bay National Marine Sanctuary in accordance with the National Marine Sanctuaries Act (16 U.S.C. 1431 et seq.)."

At the 156th Council meeting held in March 2013 in American Samoa, Fono representatives Va'amua Henry Sesepasara (Pago Pago) and Talaimatai Sua (Aunuu), District Governors Paul Alo Stevenson (Eastern District) and Paramount Chief Misaalefua

Continued on page 10

The renamed National Marine Sanctuary of American Samoa includes the original 0.25-square mile Fagatele Bay unit plus five additional units—Fagalua/Fogama'a, Aunu'u, Swains Island, Ta'u and Rose Atoll—expanding the Sanctuary area to 13,581 square miles. Source: http://americansamoa.noaa.gov/about/location.html

Sanctuary

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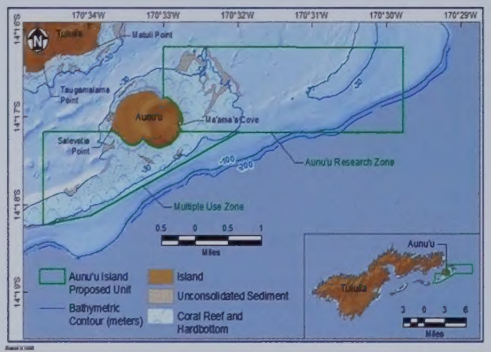


The Council supports Gov. Lolo Moliga request that the Sanctuary modify the research zone around the island of Aunuu so subsistence fishing can occur for bottom-dwelling species and to remove the notification requirement before fishing in the multiple use zone. Source: http://americansamoa.noaa.gov/about/location.html

Hudson (Manua), Office of Samoan Affairs Executive Assistant Sagele Tuiteleleapaga and fishermen Eo Mokama and Jerome Ierome spoke at length against the expansion. They detailed examples where those opposed to the Sanctuary were marginalized, including the previous Administration's disregard of a petition from the people of Manua. Besides questioning the process that led to the sanctuary expansion, they charged the previous administration with using the sanctuary designation to create a legacy.

The Council also considered letters from Honorable Lolo Letalu Matalasi Moliga, Governor of American Samoa, to Kathryn D. Sullivan, acting Under Secretary of Commerce for Oceans and Atmosphere.

After deliberations, the Council supported Governor Lolo Moliga request that the Sanctuary modify its proposed Zone B (research zone) on the island of Aunuu so subsistence fishing could occur for bottom-dwelling species and to remove the notification requirement before fishing in Zone A. The Council also encouraged the American Samoa Government to comment on the proposed rule for fishing in the Rose Atoll Marine National Monument that would prohibit subsistence fishing 0 to 12 miles around Rose Atoll

At its 157th meeting in June 2013, the Council additionally requested that the National Marine Sanctuaries Program conduct education and outreach to clarify its fishing regulations for fishing in the NMSAS and that the NMSAS work with the American Samoa Department of Marine and Wildlife Resources (DMWR) to establish a comprehensive baseline for the research zone around Aunuu Islands, which prohibits reef fish and bottomfish fishing. The Council also directed its staff to begin developing a research program to evaluate a comprehensive baseline for evaluating the effectiveness of the 0- to 12-mile closure to fishing around Rose Atoll Marine National Monument including working with NOAA, the US Fish and Wildlife Service (USFWS) and DMWR on summarizing existing data and additional studies on fish and habitats of Rose Atoll.

Local Communities Question Military Buildup in CNMI

The US Department of Defense conducted three scoping meetings in the Commonwealth of the Mariana Islands (CNMI) in April 2013. The first one was held on April 10 at Dandan Elementary School on Saipan, followed by a meeting on April 11 on Tinian and April 12 at the Carolinian Utt in Garapan on Saipan.

The scoping meetings were conducted following a study that indicates that insufficient training facilities exist in the Western Pacific, especially in the CNMI. According to the CNMI Joint Military Training environmental impact statement (EIS) pamphlets, which were distributed during the meetings, the US military is proposing to increase joint military training capabilities by developing live-fire ranges and training areas on the islands of Tinian and Pagan. The Marine Corps is leading this joint service initiative on behalf of the US Pacific Command. Military training capabilities and capacity improvements are needed to ensure that the US military services fulfill their responsibility to maintain, equip and train combat-ready forces in the Western Pacific.

During the scoping meetings, especially at the one held in Garapan, many residents showed up to express their disappointment and opposition to the plan to use Pagan for military training, but not necessarily for the use of Tinian, where two-thirds of the lands are already leased to the Department of Defense. According to the *Marianas Variety*, which provided extensive coverage of the military plans even after the scoping meetings were conducted, some of the residents were concerned because of the likelihood of continuous and uninterrupted training schedule for US Forces and US Allies, as well as using the entire island for military activities. Others wanted answers to their questions such as will the island of Pagan become like another Bikini Atoll; will the proposed US military actions lead to closure of Pagan or the entire northern islands; will there be resettlement or re-development in the Northern Islands; when will the people get their homesteads; will eco-tourism ever reach and feature the unmatched natural beauty of Pagan; what about the Pagan fishing community; what other island will be next; will the bombing contaminate the fish we eat; what will happen to an ongoing proposed fishing project; what will happen to our culture and history in the Northern Islands; will Pagan be the next Puerto Rico Dump after the military uses it; and why can't we ask and get answers to our questions in an open forum for everyone to hear.

At the scoping meetings on the military buildup in the CNMI, first the military representatives were called to speak to the people and the people were then asked to visit stations to hear about specific items before they took turns asking questions.

The CNMI government listed specific "significant impacts" posed by the military's plans on the CNMI's population, environment, resources, tourism, commerce, airspace and general way of life, among other things.

US Marine Forces Pacific Executive Director Craig B. Whelden said they have received roughly 160 comments on the Tinian/Pagan EIS, a summary of which will be published shortly.

Gov. Eloy Inos also expressed an interest in pursuing Covenant Section 902 talks with the United States to get full disclosure of military plans about Pagan after the federal government failed to inform the CNMI about such a plan. Section 902 of the CNMI's Covenant with the United States allows for periodic consultations between the Commonwealth and federal governments "on all matters affecting the relationship between them."

The National Environmental Policy Act (NEPA) process is expected to be completed by 2016, at which time the Record of Decision will be made.

Congressmen Question Proposed ESA Listing of 66 Coral Species

The National Marine Fisheries Service (NMFS) on Nov. 30, 2012, announced a proposal to list 66 species of coral found in the Pacific and the Caribbean under the Endangered Species Act (ESA). Fifty-nine of the species are found in the Pacific, and seven in the Caribbean. Among the Pacific species, seven are proposed as endangered and 52 as threatened.

More than one thousand individual comments and tens of thousands of "form letters" were submitted to NMFS during the comment period, which closed on April 6, 2013. Many of these comments, including the one submitted by the Western Pacific Regional Fishery Management Council, questioned the sufficiency and accuracy of species-specific coral data and disagreed with NMFS' approach to determining whether listing is warranted for these species.

Even Congressmen have jumped into the discussion. On June 14, 2013, US Rep. Doc Hastings, chair of the Committee on Natural Resources, and US Rep. David Vitter, ranking member on the Committee on Environment and Public Works, sent a letter to Acting NOAA Administrator Dr. Kathryn Sullivan, expressing their concerns about the proposed listing.

"We are concerned that the broad scope of this proposal will eventually be used as a reason to impact unrelated future activities in manners that were never intended under the ESA.

"The proposed ESA listing of 66 species of coral would nearly double the number of listed species under the jurisdiction of the NMFS. Ignoring the traditional process of making individualized listing determinations, NMFS seeks to list more than five dozen separate coral species covering significant portions of the Pacific Ocean and the Caribbean with just one massive federal register notice.

"We question the adequacy of the analyses and transparency of science supporting each such proposed listing. Like many of NMFS' recent ESA-related actions, this proposal appears designed more to respond to arbitrary deadlines set by closed-door settlements with litigious environmental groups than it does to ensure it is based on sound science.

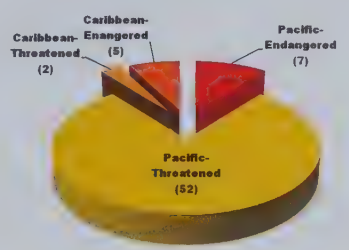
"We are also concerned that NMFS proposed coral listings are based unjustifiably on global climate change as the primary threat. The proposed listing relies on highly questionable modeling that attempts to predict ocean temperatures more than 50 years from now."

The proposed rule has also brought criticism from one of the world's pre-eminent coral scientists, Dr. John "Charlie" Veron. He disagrees with NMFS that any of the proposed coral species warrants listing, citing that, when he examined the distributions, "not one was in a restricted, small distribution category. Not one."

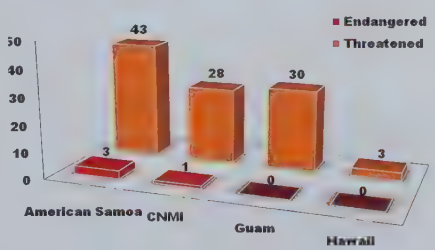
In addition, a draft list of coral species that occur in US Pacific Island region, provided by Veron to the Council, differs substantially from the list provided by NMFS.

The ESA proposed listing by NMFS was prompted by a petition to list 83 coral species submitted by several environmental organizations in 2009. NMFS subsequently initiated a status review for 82 of the petitioned species. In April 2012, NMFS released the Biological Review Team Status Review Report and the Management Report to solicit public comment before coming out with the proposed rule for 66 species.

The final determination is currently due from NMFS in December 2013. However, the Western Pacific Regional Fishery Management Council sent NMFS a letter on July 22, 2013, requesting that the final determination listing deadline be extended by six months to ensure it is made based on the best available scientific information. The ESA allows for a six-month extension in the one-year deadline from the publication of the proposed rule when there is substantial disagreement over the sufficiency or accuracy of the available data.

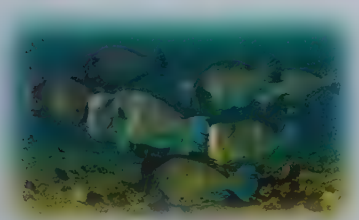


Seven coral reef species found in the Pacific are proposed as endangered and 52 as threatened.



According to NMFS, most of the petitioned Pacific coral reef species inhabit waters around American Samoa; about half are found in CNMI and Guam waters; and three species are in Hawaii. The numbers in the figure are approximate and based on the current best available information.

Bumphead Parrotfish ESA Listing is Not Warranted



Bumphead parrotfish is a management species listed under the American Samoa, Hawaii and Mariana Archipelago Fishery Ecosystem Plans (FEPs) as well as the Pacific Remote Island Areas FEP. However, it has rarely appeared in the catch data over the past 30 years and is not a targeted species in the Western Pacific Region. Photo courtesy of Sergey Bogorodsky.

The listing of bumphead parrotfish (*Bolbometopon muricatum*) under the Endangered Species Act (ESA) is not warranted at this time, according to an announcement made Nov. 7, 2012, by the National Marine Fisheries Service (NMFS). NMFS completed a status review of the bumphead parrotfish in response to a petition submitted by WildEarth Guardians on Jan. 4, 2010. The best scientific and commercial data available indicate that the species still occupies its historical range, although at a lower and declining abundance.

The primary threats to the species were identified as fishing and juvenile habitat loss. While the species portrays life history characteristics that may make it vulnerable to fishing, it also has characteristics that make it resilient. Its broad pelagic dispersal and frequent spawning allow the species to replenish its population and occupy broad geographic ranges, including refuges where fishing pressure is low. Its non-selective feeding habits allow the species to adapt to changing prey community composition.

The contemporary population size is sufficient to maintain population viability into the foreseeable future, and existing national and local regulations, including marine protected areas and increasing traditional marine tenure throughout the species range, may be sufficient to address the most important threats enumerated.

Workshops Aim to Improve Leatherback Turtle Conservation and Community Well-Being

Since 2003, the Western Pacific Regional Fishery Management Council has supported leatherback turtle conservation projects in the Bird's Head peninsula in Papua Barat, Indonesia. Leatherback turtles nesting in the Western Pacific migrate to a number of foraging grounds across the North and South Pacific, including the eastern and central North Pacific where the Hawaii-based longline fisheries operate. Under the management regime for the Hawaii shallow-set longline fishery, only 26 interactions with leatherback turtles are permitted in 2013 or the fishery will close for the remainder of the year. Conservation at nesting beaches is critical to ensure the recovery of the Western Pacific leatherback turtles and continuation of Hawaii's fishery.

The success of any sea turtle conservation project hinges on local community support. Leatherback conservation in the Western Pacific has experienced its share of challenges over the years due to the remote nature of the area, local disputes, resource rights issues and competing economic interests, highlighting the need for conservation projects to take place in a larger socioeconomic context.

To help bridge the gap between existing conservation efforts and local communities, the Council supported the work of economist Dr. Heidi Gjertsen and her collaborator Dr. Fitryanti Pakiding of the State University of Papua (UNIPA) from 2010 to 2012. The team worked with three villages boarding Jamursba Medi and Wermon, the two major Western Pacific leatherback nesting beaches. The villages of Saubeba, Warmandi and Wau are located at least 120 miles from the closest city and have no road access. Over the years, some residents from these villages have been hired by leatherback researchers to patrol and monitor nesting activity along the beaches, but community-wide benefits have been in short supply.

Drs. Gjertsen and Pakiding set out to better understand the current socioeconomic state of the three villages by conducting interviews with community members. The assessment revealed that while the villagers have seen improvements in their economic status in recent years, most households are getting by at basic subsistence levels and are dependent on farming and hunting. Communities were somewhat supportive of leatherback conservation, despite persistent belief that it does not benefit the community in a substantial way. Scholarships, housing, transportation, and agriculture and business support were identified as ways to improve the quality of life.

Species	2004	2005	2006	2007	2008	2009	2010	2011	2012
Loggerhead	1	12	17	15	0	3	7	12	5
Leatherback	1	8	5	5	2	9	8	11	7
Olive Ridley	0	0	1	1	2	0	0	0	0
Green	0	0	0	0	1	1	0	4	0

Hawaii shallow-set longline interactions with sea turtles based on 100% observer coverage. All turtles were released alive.

Following the assessment, the team developed a series of workshops to be conducted in Saubeba and Warmandi. The workshops were delivered as an integral part of the existing UNIPA leatherback conservation program to develop a stronger tie between the program and the communities. Workshop topics aimed at improving the economic condition of the village households while encouraging active community participation in leatherback conservation. Topics ranged from vegetable and cacao cultivation, meat preservation and small business finance to predator control. The agriculture and finance workshops are expected to improve food security and increase income for the village households. In the predator control workshop, community members discussed their role in reducing leatherback nest predation such as those by dogs and pigs, which is one of the main threats facing the nesting beach today.

Workshop topics aimed at improving the economic condition of the village households while encouraging active community participation in leatherback conservation.

The workshops attracted a large portion of the communities, both men and women, adding the potential for greater community support for continued leatherback conservation. Dr. Pakiding and her colleagues at UNIPA plan to help secure additional governmental assistance for the three villages and further the communities' involvement in addressing leatherback nest predation.

Photos courtesy of Fitryanti Pakiding

Hawaii Troll, Charter Fisheries Have Negligible Impact on Marine Mammals

Hawaii troll and charter fisheries pose little threat to Pantropical spotted dolphins, according to the final 2013 List of Fisheries (LOF) published by the National Marine Fisheries Service (NMFS) on Aug. 29, 2013.

NMFS had previously proposed in the 2012 LOF to elevate the troll and charter fisheries from the lowest marine mammal impact level of Category III (remote likelihood of interaction with marine mammals) to the medium impact level of Category II (occasional interaction with marine mammals). The proposed elevation was based largely on anecdotal information of hooking of Pantropical spotted dolphins and inferences made from the technique of fishing around dolphins extrapolated to all registered vessels in the fishery.

The Western Pacific Regional Fishery Management Council, along with several fishermen, submitted comments in response to this earlier proposal, arguing that it was based on inaccurate understanding of the fishery and the fishing technique.

MHI Insular False Killer Whale Listed as Endangered

A group of false killer whales associated with coastal waters around the main Hawaiian Islands (MHI) has been listed as endangered under the Endangered Species Act (ESA), effective Dec. 28, 2012. The group of whales, referred to as the "Main Hawaiian Islands insular distinct population segment (DPS)," was found to be discrete and significant compared to the pelagic and Northwestern Hawaiian Islands (NWHI) populations of the same species. The National Marine Fisheries Service (NMFS) concluded that the MHI insular DPS population is small (around 151 individuals) and has declined since the late 1980s. NMFS further concluded that their small population and low genetic diversity, as well

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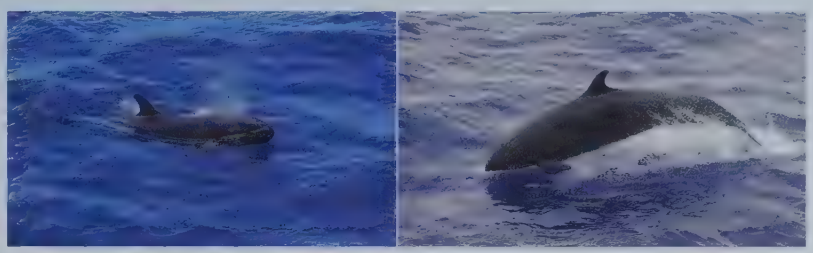
Hawaii Longliners Face New Rules to Protect False Killer Whales



False killer whales. Photos courtesy of NOAA Southwest Fisheries Science Center

New rules for the Hawaii deep-set longline fishery went into effect on Dec. 31, 2012, as a result of the False Killer Whale Take Reduction Plan (TRP) final rule. The TRP is required under the Marine Mammal Protection Act (MMPA) when incidental take of marine mammal stocks exceeds a level that is considered sustainable. The final TRP is based on a consensus plan developed by the Take Reduction Team, which included longline fishery representatives and Western Pacific Regional Fishery Management Council staff.

Longline fishermen around the Pacific are known to experience losses from false killer whales taking their catch. In most cases, the whales appear to be aware of the inedible hook and leave fishermen with only the fish head. However, in the rare case that the hook is not avoided, false killer whales may become hooked. Despite ongoing research, effective strategies to minimize depredation (taking of fish by false killer whales) have yet to be developed. As a result, the TRP focuses on measures aimed at minimizing injury to incidentally caught false killer whales rather than solving the depredation problem.

The main focus of the TRP is gear modification to allow for the safe release of false killer whales. The whales are much heavier and stronger than the tunas targeted in this longline fishery, and they are usually found hooked alive during gear haul. The TRP, therefore, requires the use of "weak" circle hooks that are strong enough to retain target catch but straighten upon the weight and strength from false killer whales. Longline fishermen are also required to use certain branch lines to ensure that the hook is the weakest point in the gear to allow for straightening. If a weak hook successfully straightens and a false killer whale is released alive without any further injuries, the interaction may not count as a serious injury/mortality under the MMPA.

The TRP also includes a backup measure to close a portion of the longline fishing grounds if the weak hooks do not provide the target reduction in bycatch. During 2013, two observed false killer whale serious injuries or deaths within 200 nautical miles of Hawaii will close an area called the Southern Exclusion Zone (SEZ). In addition, the TRP permanently closed the seasonal fishing grounds north of the Main Hawaiian Islands (MHI) that allowed longliners to fish closer to shore during the winter months. This latter closure is intended to eliminate the possible interactions with the MHI insular false killer whales that were recently listed under the Endangered Species Act (see accompanying article).

False killer whales. Photos courtesy of NOAA Southwest Fisheries Science Center

Since the plan was implemented in December, four false killer whale interactions have been observed in the longline fishery. Three of these interactions happened before the gear requirements were fully implemented on Feb. 27, 2013. An interaction observed on Jan. 29, 2013, just inside the 200-nautical-mile boundary north of the MHI was considered a serious injury and resulted in "strike one" toward the SEZ closure. It is not known whether the hook in this interaction was the new weak hook. One false killer whale interaction has been observed since the weak hooks were fully implemented. In this interaction recorded on April 20, 2013, the animal successfully straightened the hook and was released without any trailing gear. The interaction was later determined to be a "non-serious" injury, providing hope that the gear modification will sufficiently reduce bycatch so that additional closures are not triggered this year for the longline fishery.

Endangered

Continued from page 13

as hooking and entanglement in fisheries, pose threats to the population.

Despite the assessment by NMFS that led to the listing determination, little evidence exists that the MHI insular DPS of false killer whale population is negatively impacted by fishery interactions. The Hawaii-based longline fishery operates primarily outside of the insular boundary since the early 1990s, and no interactions have been confirmed with insular animals. No other fisheries operating in waters around the MHI have been documented hooking or entangling false killer whales. The evaluation that insular false killer whales are impacted by hooking and entanglement in fisheries is based on inferences from the longline fishery, injuries consistent with fishery interactions or interactions with other species of marine mammals such as bottlenose or rough-toothed dolphins.

NMFS will be considering critical habitat in a separate rulemaking and will also develop a recovery plan for this newly listed DPS according to requirements under the ESA.

Council Assists the Aha Moku System

Students test the water quality at Mokauea.

The Western Pacific Regional Fishery Management Council (WP Council) is continuing its efforts to assist in the rejuvenation of the Aha Moku system in the Hawaii archipelago. The system promotes Hawaiian values of resource management for all residents of and visitors to Hawaii and provides an avenue for governments and organizations to consult with communities and incorporate traditional knowledge into their ecosystem-based approaches to natural resource management.

The WP Council has helped to support the development and implementation of Aha Moku Councils and traditional resource management on the main Hawaiian Islands through its Ola Mau ke Aha Moku (Long Live the Aha Moku) program. Funding and assistance are provided to projects that meet the following criteria: 1) Community-based organizations conducting and/or supporting traditional natural resource management, conservation and education; 2) Organizations supporting programs, projects, activities and efforts that work toward building the Aha Moku system; and 3) Community organizations that demonstrate a track record in community consultation and/or community project execution and completion. Ola Mau ke Aha Moku projects have been ongoing on Oahu, Maui, Lanai and Molokai.

On Maui, the WP Council staff assisted the Maui Council, known as Naaikane O Maui, in its strategic planning exercise by providing training for water quality monitoring and mapping as well as preparation for community-based management of natural resources.

A Mililani High School student cleans the Mokauea reef flat of old bottles.

Hawaii Fishermen Petition for Humpback Whale Delisting

This humpback whale calf was seen breaching repeatedly off Makapuu, Oahu, while the mother rolled at the surface nearby with its pectoral fins raised above of the water. Photo courtesy of Noboru Chikira

On Aug. 29, 2013, the National Marine Fisheries Service (NMFS) announced that it will initiate a status review of the North Pacific humpback whale in response to a petition asking to delist the population under the Endangered Species Act (ESA). The petition was submitted on April 17, 2013, by the Hawaii Fishermen's Alliance for Conservation and Tradition (HFACT) on behalf of eight local fishing and boating organizations and 609 individuals.

The petition asks for the delisting of humpback whales that inhabit the North Pacific, including the winter breeding population off Hawaii and summer feeding population off Alaska. It cites scientific studies showing that North Pacific humpback whales are separated spatially and genetically from humpback whales in the Southern Hemisphere. HFACT submits that the evidence supports designating the North Pacific humpbacks as a distinct population segment (DPS), the smallest division of a species under the ESA that can be listed separately. Currently, all humpback whales are listed as a single species unit under the ESA.

According to the petition, the best available science on humpback whales shows that the North Pacific population has made a remarkable comeback. Since commercial exploitation of the species ceased in 1966, the population has increased at a rate of about 6 percent each year.

While individual whales may face threats such as ship strikes and entanglement in marine debris, these have not prevented the recovery of the population as a whole.

Even if the population is removed from ESA, humpback whales will continue to be protected under the Marine Mammal Protection Act and the moratorium on commercial whaling under the International Whaling Commission.

"When an endangered or threatened species recovers, especially to the extent of these humpback whales, it needs to be celebrated. Otherwise the integrity of the Endangered Species law is compromised," said HFACT President Phil Fernandez.

To view the petition, go to www.fpir.noaa.gov/PRD/prd_humpback.html.

The announcement from NMFS, contained in the "90-day finding" in the Federal Register notice is the first step in the petition response process. NMFS will now conduct a full status review and is expected to make a determination of whether delisting is warranted by April 2014. To ensure that the status review is comprehensive, NMFS has opened a public comment period to solicit information pertaining to the North Pacific humpback whale population. Comments must be submitted by Oct. 28, 2013. Instructions can be found at www.wpcouncil.org/category/hot_topics.

Farrington High School students use GPS to map the coral at Mokauea Island.

Left: *During their trip to Mokauea, the Kamehameha Schools chemistry students clean the reef of invasive "gorilla ogo" to be used for a class experiment for biofuel. They removed all the living animals found in the limu.* ***Center Top:*** *The project on Lanai aims to restore the ahupuaa functions of Maunalei, once the only perennial stream on the island. Project manager Kawehi Ryder and WP Council Indigenous Coordinator Charles Kaaiai inspect the stream bed.* ***Center Bottom:*** *Waipahu High School students learn about the moolelo (stories) of Mokauea.* ***Right:*** *Species identification activity at Mokauea Island.*

Naaikane O Maui includes representatives from each moku on Maui as well as committees to address major issues on the island. The 2013 traditional lunar calendar for Maui, created by the WP Council in partnership with Naaikane O Maui, features each of the moku and lists the Moku representative and his/her contact information. A copy can be downloaded at www.wpcouncil.org/education-and-outreach/lunar-calendars.

On Oahu, the Ola Mau ke Aha Moku program supported the efforts of the Mokauea Fishermen's Association to provide education and outreach opportunities to Honolulu schools and Hawaiian organizations through field trips to Mokauea. Hundreds of students a month were serviced by this project. They learned about the area, its history, geography and biology. Mokauea is a remnant of a unique fishing culture on Oahu located in the Keehi basin. The project area is within 20 minutes driving distance of Honolulu. The project helped the WP Council understand the level of ecosystem monitoring possible with a mixed group of participants.

The Ola Mau ke Aha Moku project on Lanai is helping to restore the ahupuaa functions of Maunalei. The area is the main source of water for Lanai and used to have a perennial stream, the only one on the island.

On Molokai, one project is identifying and characterizing the island's cultural community and another project is supporting the collection of lobster DNA for the University of Hawaii and the Hawaii Institute of Marine Biology. The latter project uses fishermen who are members of the community group Hui Malama O Moomomi.

For more on the Ola Mau ke Aha Moku program and the Council's support of the Aha Moku system, contact the Council's indigenous coordinator at Charles.Kaaiai@noaa.gov.

Senate Confirms Aha Moku Advisory Committee

Pursuant to Act 288 adopted by the Hawaii State Legislature in 2012, an Aha Moku Advisory Committee has been created within the Department of Land and Natural Resources (DLNR). The Committee advises the Board of Land and Natural Resources on traditional natural and cultural resource management. Members of the Committee were confirmed on Feb. 6, 2013, by the Hawaii State Senate. The Committee includes Keith Robinson (representing Niihau), Thomas Hashimoto (Kauai), Frances Leialoha "Rocky" Kaluhiwa, (Oahu), Karen Kamalu Poepoe (Molokai), Kyle Nakanelua (Maui), Winifred Basques (Lanai), Leslie Kuloloio (Kahoolawe) and Piilani Kaawaloa (Hawaii Island).

The Aha Moku Advisory Committee may provide advice to the DLNR on the following: (1) Integrating indigenous resource management practices with Western management practices in each moku; (2) Identifying a comprehensive set of indigenous practices for natural resource management;(3) Fostering the understanding and practical use of native Hawaiian resource knowledge, methodology, and expertise; (4) Sustaining the State's marine, land, cultural, agricultural, and natural resources; (5) Providing community education and fostering cultural awareness on the benefits of the Aha Moku system; (6) Fostering protection and conservation of the State's natural resources; and (7) Developing an administrative structure that oversees the Aha Moku system.

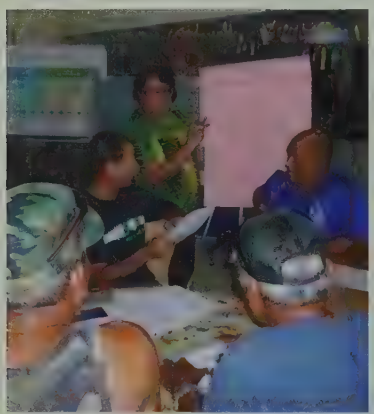
Sen. Gilbert Kahele (3rd from left) and Sen. Malama Solomon (2nd from right) pose with the Aha Moku Advisory Committee members after their Senate confirmations on Feb. 6, 2013. Standing (l-r standing) are Keith Robinson, Rocky Kaluhiwa, Leslie Kuloloio, Thomas Hashimoto and Winifred Basques. Kneeling are (l-r) Karen Kamalu Poepoe and Piilani Kaawaloa. Not pictured is Committee member Kyle Nakanelua.

The Aha Moku Advisory Committee members attended a two-day workshop at the DLNR on April 18 and 19, 2013. They were trained on their duties and responsibilities as an advisory body to the DLNR. At their second meeting held on May 22, the Committee reviewed applications for the Committee's executive director position and selected Leimana Damate.

Merizo Community-Based Management Plan Progresses

The Western Pacific Regional Fishery Management Council supports community-based management of marine resources as an essential part of its archipelago-based Fishery Ecosystem Plans. The Council is mandated to engage communities in the US Western Pacific in the development of fishery management measures for the benefit of communities it serves.

As part of this effort, the Council regularly informs the Mayors Council of Guam (MCOG) on current national, regional and local fishery resource and management issues. In 2010, the Mayors from the Villages of Merizo and Santa Rita were identified by the MCOG to engage with the Council on village-based ecosystem monitoring workshops and the potential for establishing a pilot project on the development of community-based management of marine resources.



Workshop facilitator Zita Pangelinan oversees the group discussion during the Aug. 24 workshop to develop a community-based marine resource management plan for Merizo.

In the ensuing years, the Council has been working with the Merizo community on the pilot project. Merizo has a cultural history as a fishing village, direct access to the ocean, a public boat ramp and small harbor, Cocos Island, competing ocean activities and an adjacent marine preserve.

The initial engagement with the Village of Merizo occurred in February 2012 and focused on fisheries development, potential projects and identification of community needs. The discussion covered fishery issues, local rules and regulations, access to marine protected areas, enforcement and local management specific to seasonal runs of fish, and harbor and boat ramp improvements.

In March 2012, a planning meeting was held to explore the potential for developing a community-based management plan for the village's marine resources. The Merizo community agreed to participate in development of the plan. Based on this agreement, discussions continued identifying key community resources, concerns and issues, community priorities for resource management, coordination efforts and timelines for completion.

On Aug. 24, 2013, the first marine resource management plan workshop was held with the community. This one-day facilitated workshop was conducted to define the community's management area, identify objectives, target resources and users, and outline a management plan. A second workshop, to be held in November 2013, will build on the outcomes from the first workshop by identifying community issues and areas of conflict and developing potential strategies for management of the resources.

This project goal is a fully vetted community-based management plan for coastal and marine resources of the Village of Merizo. This project will engage village residents, local and federal agencies and other stake holders in an open and inclusive process to develop the plan.

CMSP Workshops Held in CNMI, American Samoa

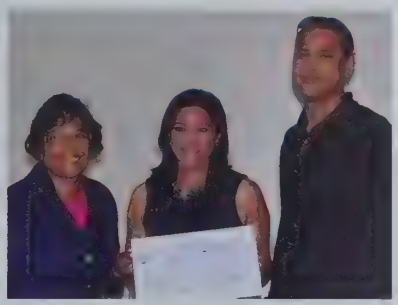
The Council conducted CMSP Workshops for communities in CNMI in February (pictured) and American Samoa in March.

The Western Pacific Regional Fishery Management Council engaged Anne Walton of the NOAA International Capacity Building Program to develop a custom two-day coastal and marine spatial planning (CMSP) training curriculum. This workshop usually runs for a week or longer. Council staff participated in a draft run of the condensed workshop on Jan. 30 and 31, 2013, at the Council office.

After this effort, the Council staff with CMSP trainer Margo Jackson conducted the training in Saipan on Feb. 8 and 9, 2013, at the Multipurpose Center in Susupe in the Commonwealth of the Northern Mariana Islands (CNMI). More than two dozen members of the Council's Mariana Archipelago Regional Ecosystem Advisory Committee (REAC) from CNMI and the Council's Plan Team and Advisory Panel members from CNMI participated in the training session. The workshop used the villages of Garapan and Tanapag as the study site. The curriculum walked participants through a specialized strategic planning process for coastal and marine resource management to determine if CMSP is needed; to identify and prioritize community resources, user groups, activities and issues; and to explore measures and develop options for management to address conflicts. The workshop allowed resource managers and users to better understand the complexities and strategies for developing a coastal and marine resource management plan.

A similar workshop was held for the Council's American Samoa Archipelago REAC and Plan Team and Advisory Panel members in American Samoa on March 6 and 7 at Falelaumei using Pago Pago Harbor as the study site.

Council Provides Funds to Improve Guam Agat Marina

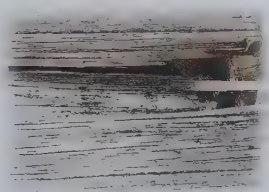


Western Pacific Regional Fishery Management Council Member/Guam Department of Agriculture Director Mariquita Taitague (left) and Council Member/Guam Fishermen's Cooperative operations manager Michael Duenas (right) present the Council's $250,000 check to rehabilitate Agat Marina to Port Authority of Guam's then General Manager Mary Torres (center).

On Nov. 20, 2012, the Western Pacific Regional Fishery Management Council presented the Port Authority of Guam with $250,000 to support much needed repair and rehabilitation of the Agat Small Boat Marina. This project was identified in Guam's Marine Conservation Plan (MCP) and is being funded through the Council's Western Pacific Sustainable Fisheries Fund pursuant to the Section 204 of the Magnuson-Stevens Fishery Conservation and Management Act.

The marina was built by the Army Corps of Engineers in late 1989 to accommodate 163 vessels with shore-side facilities for fuel, loading, and car and trailer parking. It is one of only two small-boat marinas that support approximately 5,400 boats used by the island's recreational and commercial boating communities. Since its completion, there have been no capital improvements made to the marina.

"The revenues generated from the Agat Marina fees have historically been insufficient to support any major improvements, and maintenance and repairs have been nominal over the years," said then Port General Manager Mary C. Torres. "The funding is critically needed at our Agat facility, and we look forward to upgrading the marina for the safe and convenient use by Guam's small boat owners and marina users in general."



The project will repair and/or replace existing slips at the southern portion of Dock A with boat slips and floats that can accommodate larger and heavier boats and also repair and/or replace slips at Dock B.

The Council is working with local agencies and partners to fund other projects identified in Guam's MCP, including the Hagatna fishing platform and a rabbitfish grow-out project. It also will assist with future funding for the Hagatna Boat basin marina reconstruction.

CNMI Bio-Sampling Program Measures 100,000 Reef Fish

On Aug. 2, 2013, the Commonwealth of the Northern Mariana Islands (CNMI) Bio-sampling Program measured its 100,000th reef fish, a goal thought impossible when the program started in late 2010. To celebrate, a barbeque was held at the Carolinian Utt in Garapan on Aug. 17. Those attending were the Saipan-based fish vendors, the Department of Lands and Natural Resources secretary, fishery biologists from the National Marine Fisheries Service (NMFS) Pacific Islands Fishery Science Center (PIFSC), the CNMI Division of Fish and Wildlife (DFW), the Micronesian Environmental Services (MES) team and their families.

The Bio-Sampling Program is an experimental public-private partnership involving PIFSC, DFW and MES, a local environmental contractor. MES was tasked to develop a biological data collection plan for commercial reef and bottom fish landed on Saipan. The purpose of collecting this data is to assess the condition of the local fish populations and to monitor catch composition in Saipan markets. With the support of the local fish vendors, more than 1,464 commercial night spear catches, comprising more than 59,000 pounds, were surveyed and more than 157 different species of reef fish were identified from Saipan markets.

DLNR Secretary/Council Chair Arnold Palacios and John Gourley of MES cut the celebratory cake during a barbecue to recognize the CNMI Bio-sampling Program's 100,000th reef fish measured with the support of local fish vendors.

In addition to gathering catch statistics and size frequency data, several commercially important species were chosen for further in-depth life history studies. These targeted species include laggua or redlip parrotfish (*Scarus rubroviolaceus*), mafute or emperor fish (*Lethrinus obsoletus* and *Lethrinus atkinsoni*), tataga or bluespine unicornfish (*Naso unicornis*) and satmoneti pintu or dash-dot goatfish (*Parupeneus barberinus*). Otoliths (ear bones) and gonads (reproductive organs) were removed by MES and DFW, and the biological material was shipped to PIFSC for preparation and analysis. Otoliths are used to estimate the age of fish while gonad tissues are microscopically examined to determine sex and reproductive maturity.

The program is funded by PIFSC and the Western Pacific Regional Fishery Management Council. Contact John Gourley of MES at (670) 483-4000 for more information.

Learning About the Fisheries

THE COUNCIL'S 2013 STUDENT SUMMER COURSES

Group shot of the Hawaii high school summer course students with instructors from Leahi [illegible] High School

CNMI students learned at Micronesian Environmental Services how to remove gonads to determine the sex and maturity of fish as well as otoliths to determine the fish's age.

Each year, the Western Pacific Regional Fishery Management Council hosts summer courses on fisheries and marine resource management for high school students in Hawaii, American Samoa, Guam and the Commonwealth of the Northern Mariana Islands (CNMI).

In Hawaii, the Council partners with local educators to provide students a broad overview of marine and resource related issues, exposure to technical experts working in the field, practical experience in fishing and seafood processing, and a glimpse of potential carrier opportunities. The Hawaii course ran from May 30 to July 3, 2013, and included classroom lectures, field trips and hands-on activities. At the end of the course, students were required to integrate and apply the lessons learned in a practical project. For the 2013 class project, students planned and conducted a baseline water quality and biota inventory study of the Neal Blaisdell fish ponds. Over a course of three survey days, the students mapped the ponds' water flow, selected sample sites, evaluated water samples, inventoried the marine flora and fauna, collected general environmental information and captured, measured, weighed and tagged the large jacks in the pond. The information was analyzed and included in a report to be provided to the Neal Blaisdell administration.

In American Samoa, the class of 20 students was given introductory lessons on corals, marine organisms, and fishing and monitoring techniques and methods. The two-week program was a highly interactive learning experience, consisting of hands-on trainings during field exercises and in-class group activities. At various locations on Tutuila, students were taught skills in the marine science field such as biosampling and data monitoring. The American Samoa Department of Marine and Wildlife Resources (DMWR) staff participated with other local and federal agencies to provide a wide range of learning experiences for the participating students. Coral Reef Advisory Group staff members and the National Park Service staff assisted DMWR with the curriculum and provided different perspectives to the lessons covered. The program concluded with a final presentation of group activities at a closing assembly on Aug. 2, 2013. Students were congratulated by DMWR Director Ruth Matagi-Tofiga for their accomplishments and course completion at a farewell luncheon held after the assembly.

Guam student examines a fish found during a spear fishing lesson.

In Guam, the 4-H Youth Development Program collaborated with the Guam Fishermen's Cooperative Association to conduct the 2013 High School Fishery Workshop sponsored by Council. Ten Guam youth were introduced to a variety of marine topics and fishing practices. The workshop is becoming popular within the island, and there is already a waiting list for next summer.

In the CNMI, the 2013 course was held in collaboration with the CNMI Department of Lands and Natural Resources and led by James Yangtamei. Known as the Summer

Far left: *CNMI students were taught by the Division of Fish and Wildlife staff how to measure turtles to calculate growth rates and apply Inconel flipper and Passive Integrated Transponder (PIT) tags to track turtles future migration routes and current foraging site fidelity.*

CNMI students expressed their satisfaction after returning from a bottom-fishing expedition outside the reef where they learned from experts about this fascinating fishing technique.

Institute, it ran from July 1 to 17, 2013, with 19 selected students from different public and private high schools on Saipan. Courses taught were mostly fishery related, including federal and local fishery management and law enforcement programs, marine protected areas, marine pollution, fish biology, aquaculture, fishery data collection and sampling, and traditional Chamorro and Carolinian fishing methods. Students also earned a two-year certification in cardiopulmonary resuscitation and first aid. Field trips were taken to marine protected areas, fish markets, fishing gear outlets, and marine polluted areas. When asked for their advice on future improvements to the Institute, participants said there were too many important topics to learn in a short period of time. They wished the Institute would be extended for another week or two so they could fully benefit academically from the lectures and presentations. All participants received a certificate of completion from Arnold Palacios, the CNMI Secretary of Lands and Natural Resources and current chair of the Council.

Above: *The introduction to biosampling lesson taught in American Samoa included a field trip aboard a boat.*

Left: *Eric Cruz of the National Marine Fisheries Service demonstrates biosampling to students in the Guam fishery workshop.*

Below: *American Samoa students pose during a snorkeling field trip with instructor Derek Toloumu (far right).*

American Samoa Teachers Trained to Monitor Water Quality

The teachers return from sampling the water quality sites in Pago Pago bay. Boats were graciously provided by the American Samoa Department of Public Safety.

Forty-two teachers from American Samoa participated in the Workshop on Water Quality Monitoring, presented by the Western Pacific Regional Fishery Management Council and the NOAA OceanWatch Program in partnership with the American Samoa Department of Marine and Wildlife Resources. The workshop was held on March 9, 2013, at the Governor H. Rex Lee Auditorium (Fale Laumei) in Utulei, American Samoa.

American Samoa teachers apply lessons they learned to determine water quality sites to monitor in Pago Pago bay.

During the morning session, Lucas Moxey provided lessons on Tutuila's geography, geology and water resources; watershed monitoring tools; and study approach and design. At mid-day, the teachers practiced the data collection and water sampling techniques they had learned. Samples were taken in Pago Pago bay, with the teachers traveling by boats generously provided by the Department of Public Safety. In the afternoon, Moxey led the teachers through exercises in data collation, analysis and visualization.

At the end of the workshop, each teacher was provided with an estuary and marine monitoring kit. The teachers expressed sincere appreciation for the workshop, noting their desire for additional professional development opportunities and the relevance of the information they learned to their communities as well as their schools.

Pacific Educators Collaborate at IPMEN Conference

Formal and informal marine educators from Australia, Chile, Fiji, Hawaii, Japan, Peru, Puerto Rico and the United States met Nov. 26 to Dec. 3, 2012, in Chile for the 4th biennial International Pacific Marine Educators Network (IPMEN) conference. The conference theme, "One Big Ocean, Many Dreams," focused on achieving sustainability in the Pacific via education centered on the ocean and Ocean Literacy (OL) as well as promoting marine education in Chile. The conference chair was Luis Pinto of COPAS Sur Austral, Universidad de Concepción, Chile.

The conference opened in Santiago with a Forum on Marine Education hosted by Chile's Ministry of Foreign Affairs. Welcoming remarks were provided by Ambassador Gabriel Rodríguez, director of the Ministry's Department of Energy, Science and Technology, and Innovation. The keynote address was delivered by Dr. Juan Carlos Castilla, recipient of the Chile National Applied Science Award 2010. In the afternoon, IPMEN delegates hosted an Ocean Education Fair on the seven OL principles for Santiago teachers at the Pontificia Universidad Católica de Chile. The Western Pacific Regional Fishery Management Council covered OL 6, "The ocean and humans are inextricably interconnected," with a classroom exercise on fisheries management. On Day 2, the IPMEN delegates heard presentations from local and international marine educators. Opening remarks were delivered by Council Executive Director Kitty Simonds via video. Following the presentations, delegates convened an open session to discuss the future of IPMEN.

The IPMEN conference concluded in Patagonia, where Mayor Bernardo López of Tortel (center, wearing lei from Hawaii) provided the delegates with a boat trip to a nearby glacier and an evening of cultural food and music.

The conference moved south to Coyhaique on Day 3 where COPAS Sur-Austral and the Center for Ecosystem Research in Patagonia (CIEP) had organized a Seminar on Sustainable Marine Practices in the Fjords of Chile. The seminar prepared delegates for the final days of the IPMEN 2012 conference, which involved a field session at Caleta Tortel (a 14-hour bus ride south). The Mayor of Tortel, Bernardo López, treated IPMEN delegates to a boat excursion to nearby Jorge Montt Glacier and a dinner featuring cultural food, dance and music.

To learn more about the conference, go to http://ipmen.tumblr.com, www.facebook.com/InternationalPacificMarineEducatorsNetwork and www.twitter.com/ipmenchile. Videos of the conference presentations are on the College of Exploration YouTube channel, and the presentations are posted at www.coexploration.org/ipmen.

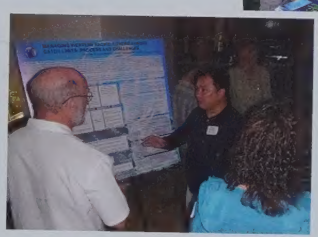
The next IPMEN conference is scheduled for July 10-16, 2014, in Tokyo and Iwate, Japan. The conference will focus on how the networking of Pacific marine educators can contribute to a) coastal recreation areas that have been devastated by natural disasters; b) preparing coastal areas for natural disasters; c) balancing of traditional ecological knowledge and science and technology, including within the fisheries industry; and d) understanding food culture and tradition, including within fisheries. Iwate is the area that was devastated by the March 11, 2011, tsunami. For more information, contact the 2014 IPMEN conference chair, Tsuyohsi Sasaki, at t-sasaki@kaiyodai.ac.jp or the IPMEN International Committee at ipmenemail@gmail.com or go to www.ipmen.net or www.facebook.com/Ipmen2014Japan.

Post Cards from the American Samoa and Mariana Archipelagos

In conjunction with its 156th meeting held in March 2013 in American Samoa, the Western Pacific Regional Fishery Management took the opportunity to dedicate completed fishery development projects that it had funded through the Western Pacific Sustainable Fisheries Fund. Monies from this fund are derived from foreign fishing penalties in the Pacific Remote Island Areas and are used to implement the Marine Conservation Plans in the Western Pacific Region. The dedications included boat ramps at Fagaalu Park and Lyon's Park in Tafuna on the island of Tutuila and Fishermen Cooperative facilities on Ofu and Tau in the Manua Islands. The American Samoa Department of Marine and Wildlife Resources was a partner on the projects, and the Department of Parks and Recreation provided the lands for the boat ramps.

1. *Council Executive Director Kitty Simonds and American Samoa Lt. Gov. Lemanu Peleti Mauga cut the ribbon to open the Fagaalu Boat Ramp on March 8, 2013.*
2. *The Division of Public Safety's enforcement vessel was the first to use the Fagaalu Boat Ramp after the dedication.*
3. *Ueta Faasili, the Council's American Samoa Fisheries development coordinator (far left), welcomes guests to the dedication of the Tai Samasame Fishermen's Cooperative facilities on the island of Tau on March 9, 2013.*
4. *Alia fishing catamarans at Tau island.*
5. *Council Chair Arnold Palacios and Council Executive Director Kitty Simonds (far left) participate in a traditional kava ceremony at the Fale Samoa in Utulei, which opened the 156th Council meeting on March 12, 2013.*

Council family members provide valuable outreach in the territories and CNMI.



6. *Jack Ogumoro, the Council's island coordinator in the CNMI (left), presented Christiana Taimanao Atalig (center) of Sinapalo Elementary School on the island of Rota with a prize for taking first place in Grades K-2 level for the Council's poster contest on Climate Change Impacts on the Traditional Places that Sustain Our Cultural and Food Security. Her winning art was among the student posters displayed in the Council's 2013 traditional lunar calendar for CNMI, which she is holding. Also pictured is the school's principal, Daisy Quitugua.*
7. *John Calvo, the Council's outreach coordinator on Guam, points out impacts to the marine ecosystem at the Council's booth during the Guam Micronesia Island Fair, May 17 to 19, 2013. This is the largest single cultural event on the island, with attendance often exceeding 30,000. Photo courtesy of Steve Jackson*
8. *Frank Camacho, a member of the Council's Scientific and Statistical Committee (SSC) and professor at the University of Guam, explains annual catch limits during a poster session at the Coral Reef Symposium, on June 24, 2013, at the Hyatt Regency Guam. Also presenting posters on behalf of the Council were fellow SSC member Judy Amesbury and Council outreach coordinator John Calvo. Photo courtesy of Melanie Blas.*

Fishing tournaments are an opportunity for the Council to provide outreach to fishermen. On Guam, August was a particularly busy month with three important tournaments surrounding the 15th annual Gupot Y Peskadot (Fishermen's Festival), organized the Guam Fishermen's Cooperative Association and held on the 11th at the Hagatna Marina.

9. *Mike Cassidy and Ray Flores display their catch taken during the Marianas Underwater Fishing Federation's 9th annual Spearfish Challenge, held Aug. 10, 2013.*
10. *The first place marlin at the 18th annual Guam Marianas International Fishing Derby weighed in at 550 pounds and was landed by Capt. John Hattig and crew aboard* Da 'Net. *The derby was organized by the Guam Fishermen's Cooperative Association and held on Aug. 17 and 18, 2013.*
11. *A young fisherman brings his fish to be weighed and measured during the Guam Organization of Saltwater Anglers' 4th annual In-shore Tournament, Aug. 9 and 10, 2013.*

MONF3 Conference Sets Course for Next MSA Reauthorization

The 3rd Managing Our Nation's Fisheries (MONF3) conference was held at the Mayflower Renaissance Hotel in Washington, DC, on May 6 to 9, 2013. More than 600 people attended representing federal, state and tribal agencies; commercial, recreational, and subsistence fisheries; environmental organizations; fishing community representatives; and the interested public.

The conference was coordinated by the eight Regional Fishery Management Councils and the National Marine Fisheries Service (NMFS) with support from fishing industry and environmental groups. The conference aimed to identify legislative and non-legislative measures to advance fishery sustainability in light of the coming reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act.

Managing Our Nation's Fisheries 3
Advancing Sustainability

Most participants seemed to agree that the Magnuson-Stevens Act has been successful in managing US fisheries and that large-scale revisions are not needed. Under the Act, 32 fish stocks previously labeled as "overfished" have been rebuilt. However, there was agreement that some changes are needed to keep the Act relevant, flexible and responsive.

During the conference, speakers and panelists interacted with audience participants to develop "findings" to further fishery sustainability. One hundred and twenty-eight findings covering nine topics were presented on the last day. Some of the themes that emerged included the need for better communication and collaboration among groups involved in fisheries; the need for flexibility in regulations, in part to allow managers to react to change more quickly; the need for more and better science, including collaborative research involving fishermen and scientists; and stronger measures to ensure more responsible international fishery management. Other themes included the need to consider ecosystem management, the need for stronger tools to address habitat impacts, the challenges of adapting to climate change, and the benefits of a federal sustainable seafood label.

Among the findings that resonated particularly strong for the Western Pacific Region were those dealing with compliance within international fisheries, sustainable seafood labeling and recognition of subsistence fisheries.

It is clear that US fisheries operating in the Western and Central Pacific Ocean (WCPO), for example, are on a much more stringent playing field in terms of monitoring and enforcement than the majority of foreign vessels operating in the WCPO. NMFS dedicates a great deal of time and effort to provide information to the Western and Central Pacific Fisheries Commission (WCPFC) on US compliance with conservation and management measures and submits required catch and fishing effort data. The current Compliance and Monitoring Scheme relies on self-reported information from members, cooperating non-members and participating territories to the WCPFC in annual reports. However, details on the specific domestic implementation of the management measures are believed to be lacking in many country reports. Nonetheless, many countries were deemed compliant by the Commission. This is in light of fact that large volumes of observer data are still not keypunched into data files and thus unavailable to reviewers for compliance monitoring.

Among the MONF3 findings were potential routes to address the disparity in the international management of fisheries, such as broadened trade sanctions, stricter imported seafood labeling requirements and a national sustainable seafood certification program.

The conference findings are posted online at http://tinyurl.com/cgugoef. For more information on the conference, including position papers, please see http://www.managingfisheries.org.

Is It Time for a USDC Certified Fish Label?

Organizations, such as the Marine Stewardship Council, offer services to fishing sectors that are willing to pay to have their fisheries reviewed against a suite of standards that take into account the status or health of the stocks, level of bycatch in the fishery, impacts to habitat, the management regime by which the fishery is managed and processing practices, among other factors. Other organizations, such as the Monterey Bay Aquarium, put out a list of fish species with green, yellow and red indicators guiding consumers in their purchasing of seafood. Because consumers now look to purchase fish and seafood caught in responsible fisheries, grocers are now demanding those fisheries be certified or assessed as "responsible fisheries." Industry giants such as Wholefoods and Walmart now purchase their fish from fisheries and distributors that "certify" their fish as responsibly caught and processed.

Concurrent to the increased consumer demand for responsibly caught fish has been increased scrutiny over fisheries by environmental organizations and additional layers of regulations from government agencies. From the fishermen's perspective, their clients are demanding certified accountability of their product while the government is applying ever growing controls that ensure accountability. Inevitably, the question arises, "Why isn't a fishery that is managed through an approved federal fishery management plan deemed sustainable?" In order for a plan to be approved by the US Secretary of Commerce, the fishery plan must meet the standards set by the Magnuson-Stevens Fishery Conservation and Management Act and dozens of other statutes and authorities, such as the Endangered Species Act, National Environmental Policy Act, Marine Mammal Protection Act, and so on.

The Western Pacific Regional Fishery Management Council has supported and forwarded this position on a national level several years ago when it presented this argument to the Marine Fisheries Advisory Committee (MAFAC). The Council believes that a federal seafood labeling program should include a provision that all carbon monoxide treated tuna be labeled with the date when the fish was caught and/or a sell by date. The local implementation of this program should also include a "Hawaii caught" distinction to distinguish fish being caught in Hawaii from foreign caught fish that is processed in Hawaii (i.e., product of Hawaii).

Continued on next page

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Today, fishermen are asking a similar question, "Why should they have to pay for costly independent certification when the regulatory burden ensures the fisheries approved by the US Department of Commerce are sustainable?" Even the international arena recognizes that US fisheries are globally among the best managed. US fisheries ranked second on the list of most responsible fisheries in the world when evaluated against the Code of Conduct for Responsible Fisheries adopted by the United Nations Food and Agriculture Organizations (FAO). The Hawaii longline fishery received a score of 94 percent compliance against the FAO Code.

With new interest in certification, the MAFAC has formed a Certification Working Group that is considering seafood certification programs to support sustainable fisheries managed under federal fishery management plans. An on-line survey to determine the need for seafood certification was sent MAFAC members and industry representatives. Outcomes from the survey and recommendations for further actions will be presented at the MAFAC meeting on Oct. 22-24, 2013, to be held in Washington, DC.

Council Family Update

New and Reappointed Council Members

On June 20, 2013, the Commerce Department announced the new and returning members to the Western Pacific Council. They are **Dr. Claire Tuia Poumele** filling the vacant 2012 obligatory seat for American Samoa that expires in 2015 and **Taulapapa William A. Sword** (American Samoa) and **Julie A. K. Leialoha** (Hawaii), who are reappointed for three years to their at-large seats. The new terms began on Aug. 11. The Commerce Secretary selects members from nominations submitted by the governors. Members can serve up to three consecutive terms.

Dr. Claire Poumele

Taimalelagi, Dr. Claire Tuia Poumele, was appointed by the Governor of American Samoa as the director of the Port Administration in January 2013. She has been an educator for the past 34 years and served as the director of Education from 2007-2011. She earned a bachelor of science and a master of education from the University of Portland, Ore., and EdD in educational administration from Brigham Young University, Utah, in 1983. She has four daughters and five grandchildren.

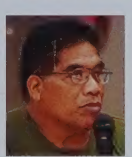
Protected Species Committee

Ten members have been appointed to serve on the new Protected Species Committee, which merges and expands the former Sea Turtle and Marine Mammal Advisory Committees to include other protected species of interest to the Council, i.e., seabirds, sharks, coral and reef fish. The new committee members are **George Balazs** (NMFS PIFSC), **Milani Chaloupka** (Ecological Modelling Services), **Erin Oleson** (NMFS PIFSC), **Robin Baird** (Cascadia Research Collective), **David Hyrenbach** (Hawaii Pacific University), **Carl Meyer** (Hawaii Institute of Marine Biology), **Sam Kahng** (Hawaii Pacific University), **Jim Lynch** (K&L Gates), **Kimi Apiki** (Alu Like) and **Makani Christensen** (commercial fisherman and native Hawaiian cultural practitioner).

Ad Hoc Education Committee

As directed by the Council during its 156th and 157th meetings, an Ad Hoc Education Committee has been formed to explore ways to build local capacity for fishery science and management in American Samoa, Guam and the CNMI by providing opportunities for college students from these areas to earn a degree in marine science. The Committee met by teleconference on Aug 8 and Sept 9, 2013, and is comprised of **Scott Bloom** (NMFS Pacific Islands Regional Office), **Frank Camacho** (University of Guam), **Matthew Crane** (Northern Marianas College), **Jameson Newtson** (American Samoa Community College), **Celestino "Tino" Aguon** (Guam Department of Agriculture), **Erik Franklin** (Hawaii Institute of Marine Biology), **Arnold Palacios** (CNMI Department of Lands and Natural Resources), **Michael Seki** (NMFS PIFSC), **Craig Severance** (University of Hawaii at Hilo, retired), **Derek Toloumu** (American Samoa Department of Marine & Wildlife Resources) and Council staff.

In Memoriam



Mannas "Manny" Sikau

Mannas "Manny" Sikau, a pwo-ordained navigator and grandson of the great Polowat navigator Ikuliman, passed away in February 2013. Manny served on the Guam Lunar Calendar Committee, since its creation by the Council in 2008. He was also a member of the Traditions About Seafaring Islands (TASI) group that shared knowledge of canoe building and traditional navigation skills. TASI partnered with the Council to exhibit a Chamorro proa at the inaugural First Stewards Symposium in the Smithsonian's National Museum of the American Indian, Washington, DC, in 2012.

Congratulations to ...

Valentine Vaeoso

John Corbin of Kaneohe, Hawaii, and **Jesse Rosario**, University of Guam, for their appointments as new members to NOAA's Marine Fisheries Advisory Committee: and

Valentine Vaeoso for receiving the American Samoa Marine Science Fellowship Scholarship (organized and funded by the Council and the Territory's Coral Reef Advisory Group) to pursue a marine science degree at the University of Hawaii at Hilo.

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2013 Council Calendar

www.wpcouncil.org

September

25-26
Non-commercial Fisheries Advisory Committee meeting, Honolulu

26 - Oct. 1
Western and Central Pacific Fisheries Commission's Technical & Compliance Committee meeting, Pohnpei, Federated States of Micronesia

October

2
Hawaii military-federal-state agency coordination meeting, Honolulu

5-10
The Wildlife Society conference, Milwaukee, Wis.

8-10
Scientific & Statistical Committee 114th meeting, Honolulu

11-12
Rota Fishing Derby, Rota, CNMI

11-20
North Pacific Marine Science Organization 22nd annual meeting (PICES2013), Nanaimo, Canada

13
Hawaii Fishing and Seafood Festival, Honolulu

15-18
Western Pacific Regional Fishery Management Council 158th meeting, Honolulu

17
Fishers Forum, Honolulu

21-25
Council Member Training, Washington, DC

22-24
Marine Fisheries Advisory Committee meeting, TBD

28-29
Western and Central Pacific Fisheries Commission Permanent Advisory Committee meeting, Honolulu

31
Halloween Shootout Tournament, Lahaina, Maui

November

8-10
Fish for Wishes Inshore Fishing Tournament, Hagatna, Guam

9
US Coral Reef Task Force-Pacific Regional Ocean Partnership meeting, TBD

10-17
Association of Hawaiian Civic Clubs 54th annual convention, Kalapaki Beach, Kauai

11-15
US Coral Reef Task Force meeting, St. Croix, US Virgin Islands

13-16
Fisheries Leadership & Sustainability Forum, Monterey, Calif.

19-20
Marine Recreational Fisheries Information Program Operation Team meeting, Charleston, SC

19 and 21
Merizo Community Workshiop, Merizo, Guam

22-24
Japan Sea Turtle Symposium, Makinohara City, Shizuoka Prefecture, Japan

December

2-6
Western and Central Pacific Fisheries Commission, Cairns, Australia

Upcoming Events

114th Scientific and Statistical Committee (SSC) Meeting

The SSC will meet 8:30 a.m. to 5 p.m. Oct. 8 to 10, 2013, at the Council office, 1164 Bishop St., Suite 1400, Honolulu. Jason Link, the new senior scientist for ecosystem research, National Marine Fisheries Service will provide some opening remarks. Key issues to be covered on Tuesday are insular fisheries (e.g., main Hawaiian Islands bottomfish, Hawaii parrotfish, Guam coral reef fish, and American Samoa monitoring projects and crown-of-thorns eradication) and program planning (e.g., estimated maximum sustainable yield for data-poor stocks, evaluating the need to amend acceptable biological catch and annual catch limit control rules, research, data and allocation). On Wednesday, the main topics are pelagic fisheries (e.g., international fisheries, bigeye tuna management, Marianas shark fishery management, Marianas skipjack resource assessment, longline reports and effects of fish aggregation devices on fish migration) and protected species. Thursday activities include other business and summarizing the SSC recommendations to the Council.

158th Western Pacific Regional Fishery Management Council Meeting

The Western Pacific Regional Fishery Management Council will meet Oct. 15-18, 2013, in Honolulu. The Standing Committees will meet from 8 a.m.-6 p.m. on Tuesday at the Council office, 1164 Bishop St., Suite 1400. The full Council will meet 8:30 a.m. to 5:30 p.m. on Wednesday and 8:30 a.m. to 5 p.m. on Thursday and Friday at the Laniakea YWCA-Fuller Hall, 1040 Richards St. Major agenda items are similar to the SSC agenda (see above). For a complete agenda, go to the calendar and meetings section at www.wpcouncil.org.

FISHERS FORUM Hawaii

Fishermen and interested members of the public are invited to the Fishers Forum to be held 6 to 9 p.m. on Thursday, Oct. 17, 2013, at Harbor View Center at Pier 38, Honolulu. Informational tables, presentations, discussion and door prizes are included at this free, family friendly event as part of the 158th Council meeting.

Smoked Opah Tartare

with Watercress Salad, Breadfruit and Taro Chips

Compliments of Chef Jon Matsubara.

Serves 4 people

Smoked Opah Tartare
1 lb opah fillets
¾ cup mayonnaise
1 tbsp Italian parsley, chopped
1 tsp tarragon
1 tsp chives
3 tbsp Meyer lemon juice
2 tbsp shallots, minced
To taste salt and pepper

Method
Brine fillets for 10 hours and smoke with kiawe (mesquite) wood for 45 minutes. Cut fillets into small dices (¼ to ¾ inch), and mix all the ingredients into a bowl. Season to taste.

Watercress Salad
½ cup Meyer lemon juice
1 cup olive oil
To taste salt
1 bunch watercress, tender sprigs
1 lb cherry tomatoes, halved
1 Heirloom radish, sliced thin on mandolin

Mix lemon juice and olive oil with salt to taste. Mix all ingredients in a bowl.

Breadfruit & Taro Chips
1 sweet potato peeled sliced thin and soaked in water
1 breadfruit skinned and sliced thin and soaked in water
1 taro peeled sliced thin and soaked in water
1 quart canola oil

Dry all chips and fry at 350 degrees until golden brown.

Plating
Scoop 4 oz smoked opah in middle of bowl. Place Watercress Salad around opah like a nest. Stick chips in opah vertically and serve.